HOUSING OF PEOPLE OF SMALL INCOMES.

No. 4.

SOME RESULTS OF SANITARY REFORM.

ONE of Lord Beaconsfield's sayings so it is said was "The health of the people is, in my opinion, the first duty of a statesmen."

And our humble opinion is the same. The health of the people involves, we may say everything with which a statesman has to deal. There is not a single move he makes that does not in some shape or manner affect the people's health.

For example—the submission to arbitration of the Venezuelan Boundary dispute just agreed upon will likely do away with the bad health of many British soldiers who would otherwise be afflicted with cholera or yellow fever or whatever disease usually attacks white residents dwelling in such tropical countries. The policy of "protection" which may possibly be inaugurated under the reign of the incoming administration would undoubtedly affect the health of the operatives who will be compelled to work long hours in the factories which are now under process of reopening.

The method of social economy kept in vogue by our statesmen no doubt affects the health of the number of despondent suicides of which we read daily in our newspapers—and to come down more particularly to the subject matter of these articles; the statesmanlike efforts which compel our citizens to curtail their rent account and leave the healthy house vacant so as to huddle in close quarters in the old unhealthy tenements for want of money are responsible for a large amount of the unhealthiness of our people witnessed by the inordinate number of physicians employed to counteract the results. However the provision of healthy homes and proper sanitary urban arrangements no doubt will relieve much of unhealthiness and sickness.

To those who are of what is called a *practical* turn of mind the following excerpt from the Government Report of "Housing of the Working People" which we are taking as our text, giving us a very queer reason why we should keep the laboring classes healthy, must commend itself.

"Sir James Paget, the distinguished English physician, says the statistics of friendly societies and other similar bodies favor the belief that the whole population of England between 15 and 65 years old in each year work 20,000,000 weeks less than they might if it were not for sickness. Estimating those for the domestic, industrial, and agricultural classes as numbering 7,500,000 he puts their loss at £11,000,000 ($53,531,500) annually. "No one who lives among the poor can doubt," says he, "that a very large proportion of the sickness and loss of work which one sees might have been prevented." He reckons this preventable proportion at one-fourth. In such case the loss that is inflicted on the working class must be nearly £3,000,000 ($14,599,500) yearly. One entirely preventable disease, typhoid fever, causes, he calculates, an annual loss of 230,000 weeks of work to those who survive it.

"The royal commission on the housing of the working classes, 1885, speaking of the housing of the poor in the low parts of London, say that the statistics of annual disease consequent upon overcrowding would not convey the whole truth as to the loss to health occasioned by it to the laboring classes. Some years ago the London board of health instituted inquiries in these low neighborhoods to see what was the amount of labor lost in the year, not by illness but by sheer exhaustion and inability to work. It was found that upon the lowest average every workingman or workingwoman lost about twenty days in the year from simple exhaustion.

"It is very evident, therefore, that no matter how much we may glean from comparative death rates as to the results of sanitary reform, they do not tell the whole story. There are thousands of cases of poor health and depressed vitality which are not followed by death. The improvement in the death rate is, however, the surest available gauge because it is the most tangible."

The point of view of considering health only as a factor in producing wealth and luxuries is assuredly a very low one to take; health is sufficiently good for its own sake to need no other arguments.

The argument adduced is moreover fallacious; for the working class loses no time by any of its members being sick, for there are always plenty of idle ones to take the sick one's places, and it is no loss to the community, for the product is so great that everybody is amply supplied with all they want, only a great deal happens to be in the store houses instead of in use; a few weeks off, even as many as twenty million in the year, cuts no figure—the only matter of regret is that those weeks cannot be spent pleasurably instead of on a sick bed, this is the part of it that is being remedied by sanitary reform.

The Report gives a number of interesting tables of statistics showing the results of Sanitary Reform in the way of reduced general death rate attendant on the less density of population per acre—the less density of population per house and per room.

"The death rate of Glasgow, when the improvement trust commenced operations (1871), was 32 per 1,000; in 1892 it was 22.8 per 1,000 for the extended city, and for the old area 23.6."

Study of these tables—which we have not space to publish in these articles—leads to the conclusion that there is an undoubted relation between overcrowding either within dwellings or on ground space, and death rates.

"Obviously the percentage of the total population living in tenements of one room is a fact of the greatest importance. It must have a close relation to physical health. The table shows that generally speaking the highest death rates are found in the towns which show the largest precentage of the population living in one-room tenements. Another column of this table shows the average number of persons living in each one-room tenement. These averages quite generally follow the death rate, the highest death rate being found in the towns with the largest number of persons in one-room tenements. Again, the town which has the smallest percentage of the population living in tenements of five rooms or upward has the highest death rate, and so on throughout the group of the four towns which have the high death rates. * * This table exposes the tremenous hygienic influences of over-crowding. Generally speaking it proves that the most densely populated tenements are connected with the highest mortality and vice versa."

The necessity of preventing overcrowding by force is to be deplored but still it is better than nothing; and is the only way to do until a better state of society evolves itself.

Chapter V of the report is devoted to Sanitary Aid Societies and their work and commences thus wise:—

"Some of the most prominent witnesses before the English royal commission on the housing of the working classes, of 1885, stated their belief that existing laws were ample for dealing with all sanitary questions if they were properly enforced. The same complaint has often been heard in different cities of the United States. Sanitary law and sanitary administration are two quite different things, and the one does not always follow the other in natural sequence.

"It must be observed, however, that expediency plays a a certain part in sanitary administration. To have rigidly enforced at the outset stringent laws, such as exist in New York, for example, would have arrayed the property owning element in opposition and might have brought about a repeal. As owners of unhealthy property grow accustomed to greater pressure, and as tenants become more exacting in their demands, the task of sanitary authorities becomes easier. In the beginning an insistence on conformity to legal prescriptions (many of which were looked upon as unnecessarily strict) would have been unwise and might have blocked the way to progress.

"Sanitary authorities, like all other administrative bodies, if left to themselves, are apt to become conservative. A little stirring up occasionally is usually a good thing, and the interest of enlightened citizens, organized into associations for extending aid and cooperation, is especially useful.

"The testimony of such veterans in sanitary science as Dr. Russell of Glasgow, Dr. Shirley Murphy of London, Dr. du Mesnil of Paris, and Dr. Janssens of Brussels, as well as of a host of American experts, goes to show that the ignorance and apathy of the poor, for whose benefit work has to be done, are among the greatest obstacles met with in the discharge of duty. Sanitary aid societies may do much to help the authorities by acting as intermediaries during the period in which fear of the possible consequences of communicating a knowledge of the existence of nuisances or other insalubrity still holds sway. Direct contact between the poor and boards of health being once established, there is no longer the same necessity of intervention. An important fact is that without the good offices of the intermediary, cooperation is with difficulty established.

"A fundamental need, which has so far received but scant recognition in this country and England, but which is at least recognized in the educational systems of France and Belgium, is instruction in the elements of household hygiene in the public schools. The effects of this kind of teaching would soon become apparent, and in the course of a generation or two would powerfully react upon sanitary amelioration. Dissatisfaction with unhealthy surroundings would be cultivated, and the knowledge of what was good and wholesome would make of the rising generation a far more exacting tenant class than their elders.

The principal functions of sanitary aid associations may be summarized as follows:

"1. To organize and mold popular sentiment in favor of wise sanitary legislation.

"2. To assist boards of health in the discharge of their duties by bringing to their knowledge the existence of insalubrious conditions in districts where they are most likely to occur and which need more or less constant watching.

"3. To encourage sanitary authorities to do their whole duty by supporting them in difficulties arising in critical cases, and in bringing proper pressure to bear wherever there seems to be an inclination to relax effort. The creation of public opinion to sustain sanitary authorities in their work is also an important duty.

"4. To assist in the education of the poor on sanitary questions; teaching them that there is an authority to appeal to against nuisances, instructing them in procedure; leaving in their homes a printed list of elementary hygienic observances, and such literature as is occasionally distributed by boards of health, giving suggestions on the care of infants, and the conditions to be observed in the treatment of persons in cases of infectious diseases. Education in sanitary as well as in all other matters lies back of reform. The knowledge of improved conditions begets a desire for their enjoyment.

"5. The publication from time to time of facts gleamed from official sources which tend to act as a salutary warning against residence in unhealthy neighborhoods. An example of what is meant is the inquiry made by Dr. Thresh into the causes of excessive mortality prevailing in District No. 1, Ancoats, Manchester, England. Taking the returns of deaths from the health and hospital reports he was able to show the true death rate for the whole district. It was proved that only in a few blocks was this less than 40 per 1,000, while in some places it was 50, 67, and even 80 per 1,000. The publication of these facts aroused the more intelligent working people who were residents of the neighborhood to form 'sanitary and healthy home associations,' as they called them. They were awakened from their apathy, and in a short time the rehabilitation of the district was effected. Dissemination of knowledge in relation to death rates and causes of sicknesses for specified localities is of great practical value. Not only is public opinion aroused, but interested opposition is left powerless to thwart progressive action. Public opinion, when informed, will always sustain sanitary authorities in the application of drastic remedies. To make healthy and keep healthy existing buildings is a work of scarcely less importance, though much more difficult to accomplish than the safeguarding of new structures. Voluntary associations of individuals cooperating harmoniously with the regularly constituted authority may powerfully assist in promoting health and good housing among the masses. In sanitary matters eternal vigilance is the price of safety.

"All well organized boards of health seek to disseminate among the poor information relating to the care of children and the maintenance of a favorable hygienic environment. The New York board of health does considerably more. It maintains a special summer corps of physicians whose duty it is to visit every tenement house, beginning in the latter part of June, for the purpose of giving medical advice and treatment, distributing literature, giving hints for the care of infants, and searching out insanitary conditions. There are fifty of these medical gentlemen, forty-eight doing duty in the tenement house district, while two are assigned to the hospital boat and to charitable excursions undertaken for the benefit of mothers and children. Personal visitation of this kind is far more effective than the distribution of literature alone. Attention is usually paid to oral advice from those professionally competent to give it, while heed is not always accorded to even the most useful hints which well edited circulars may contain. A word or two often suffices to correct household defects unfavorably affecting

the health of occupants which were regarded hitherto with complacency."

There is no doubt a little too much paternity or rather maternity about all this—it is no doubt all necessary, but one cannot help thinking that a few municipal workshops well equipped and hygienic—where the heads of families could get constant work at good pay, would sooner do away with unsanitary conditions and cost no more than the army of Sanitary Inspectors and Sanitary Aid Societies—which now potter about trying to cover up the sores which all the time fester below.

Although these Sanitary Aid Societies have done much good, in consequence of their being so many disconnected ones, (in New York there are probably thirty associations engaged in ascertaining infractions of the laws and otherwise aiding the local authorities,) their work being thereby unsystematic, the result of their labors are not what it should be. More practical results, we believe would be obtained by giving an official character to them by the City organizing in each precinct a committee which shall choose a head man, who shall be recognized as a city officer and shall report to the Board of Health all infractions of laws, all complaints, bad state of any streets and sewers and all other matters appertaining to the public welfare.

The closing sentence applies here with good force:

"Vigilance is necessary to maintain a proper hygienic standard in the housing of the poor. From the very magnitude of their work the regular sanitary administrations find themselves crippled from lack of resources and of inspectors sufficient to fully accomplish the work. The organization and maintenance of such societies is a necessity in order to secure the wise enforcement of health laws and the advance of sanitary education in any city. The prime conditions of success are hearty cooperation with regularly constituted authority, and an intimate knowledge of the conditions and needs of the homes of the poor."

COMPRESSED AIR FOR STREET CARS.

THE MANHATTAN Elevated Railroad of New York has authorized an air-power company to place one of its motors on one of its lines to run on schedule time and to draw a train of five cars. If it should be a success in this trial the Manhattan Company will consider the use of air motors on the entire system. The compressed-air locomotive or motor is little more than a long, black cylinder, similar to the boiler of the present locomotive, with the cab at one end. There will be no smokestack, no tender and no dome. The only protuberances on the cylinder besides the cab will be the whistle and the sandbox. The air power company claims that it can draw loaded trains more rapidly, smoothly and safely than is done by the steam locomotive, and at a decrease in operating expense, and points to its cars now running on the 125th street branch of the Third avenue cable line, in New York City, as an example of what it can do. The company avers that the public and the railway officials are more than satisfied with the cars, and that it is only a question of time when compressed air will supersede steam, cable, electric and horse power on city street railways.—*Mining and Scientific Press.*

A NEW PROCESS FOR THE MANUFACTURE OF STEEL.

A NEW process for the manufacture of steel, invented by B. Stockman of Manchester, England, is claimed to be a success. The process involves a combination of both the Bessemer and the open-hearth methods of manufacture, and it is a basic dephosphorizing system. The molten phosphoric iron is brought into contact, in a converter or similar vessel, with dephosphorizing agents—nitrate of soda, common salt and titanic iron sand being the chief ingredients—and, after a contact of only three minutes, the metalloids are practically eliminated. The metal is then poured into an open-hearth melting furnace, where it is treated for about two hours, during which time the dephosphorization and desulphurization are completed, aud the carbon is added in the usual way, as spiegeleisen or ferro-manganese. The steel produced by this system has been tested by Kirkaldy of London and Nash of Sheffield, and the results are said to be satisfactory. It appears to be adapted to the production of steel of any degree of hardness, and, as it only occupies about 2¼ to 2½ hours, it is comparatively inexpensive.—*Mining and Scientific Press.*

TENDERS TO BE RECEIVED.

Treasury Department, Office Supervising Architect, Washington, D. C., November 9, 1896. Sealed proposals will be received at this office until 2 o'clock P. M. on the 22d day of December, 1896, and opened immediately thereafter, for all the labor and materials required for the low pressure, return circulation, steam heating and ventilating apparatus and power boiler for the U. S. Marine Hospital Building at Port Townsend, Washington, in accordance with the drawings and specification, copies of which may be had at this office or the office of the Custodian at Port Townsend, Washington.

Each bid must be accompanied by a certified check for a sum not less than 2 per cent of the amount of the proposal. The right is reserved to reject any or all bids and to waive any defect or informality in any bid, should it be deemed in the interest of the Government to do so.

All proposals received after the time stated will be returned to the bidders.

WM. MARTIN AIKEN,
Supervising Architect.

LEGAL DECISIONS.

From a large number of Legal Decisions of the higher Court, of the different States of the Union, we select and publish in this column, such as appear applicable to this section of the country.

RIGHT TO PARTY WALL ACQUIRED BY LONG USE.—Where an adjoining owner and his predecessors in title had used for twenty years a wall, part of which was wholly situated on the neighbor's land, for the support of their building, an easement in such land for such purpose was created by such long use, and this right becomes an appurtenance to the estate and passes to the grantees.

Barry v. Edlavitch, Ct. App. Md., 35 Atlantic Reporter, 170.

ALLEGATION OF OWNERSHIP OF LAND NECESSARY TO LIEN.—Under the law providing that one furnishing labor and material for any structure under a contract with the owner of the real estate shall have a lien upon it for the value of the labor and materials furnished, a complaint in an action to enforce such lien which fails to allege that the party sued was the owner of the land on which it was sought to attach the lien, or set out that such party had any interest in it, is fatally defective.

Knapp Elec. Works v. Mecosta Elec. Co., Sup. Ct. Mich., 68 Northwestern Rep. 245.

DISCREPANCIES IN PLANS AND SPECIFICATIONS.—Where the plans and specifications of a building were accessible to the builder before he made the contract, and an examination of them would have shown that there were apparent discrepancies in them, he is bound by a provision of the contract that if any discrepancies are found to exist between the plans, working drawings and specifications, the architect shall decide as to their true intent and meaning. And the fact that such architects drew the plans and specifications, and were to receive a compensation of five per cent of the total cost of the building, will not warrant an inference of fraud in their decision.

Kelley v. Muskegon, Sup. Ct. Mich., 68 N. W. Reporter, 282.

DESCRIPTION OF PROPERTY FOR LIEN.—A mechanic's lien for construction of foundations for a mill and boiler house sufficiently identifies the property, under the law of Pennsylvania, by stating that the buildings are on the grounds of a certain company, in a certain town, and giving the dimensions of the mill and foundations.

Safe Deposit, etc., Co. v. P. & C. Iron & Steel Co., Sup. Ct. Penna. 35 Atlantic Rep. 229.

BUSINESS MOSAICS.

If you have not made a visit to the rooms of Mr. M. S. James in the Flood Building and inspect his stock of plumbing work in the way of porcelain and porcelain line work you have missed a sight worth seeing. Mr. James is the Pacific Coast Representative of the J. L. Mott Iron Works, New York. This firm is so well known throughout the country for the improvements made from year to year in sadiatry plumbing that one must make a frequent visit in order to keep posted on what is being done in this line.

Family friend—Well, how's little Willie? We don't see as much of you as we used to. WILLIE (shyly)—No; I'm in long trousers now.—*Truth.*

W. P. Fuller & Co., having such perfect machinery for the manufacture of paint, that it is no wonder they produce a pure article, as pure material well ground will produce pure paint. The new wall finish "Duresco" is described as a very desirable article producing a finish upon walls that can be washed and still preserve its face uninjured, at the same time binding the wall even when disposed to crumble.

Mrs. Casey—Joost see little Mary makin' love to little Moikey. MRS. KERRIGAN—God hilp the poor men when she grows oop. She makes love like a widder already.—*Puck.*

N. & G. Taylor Company, Philadelphia, Pa., as manufarturers' agents for the Pancoast Ventilator, issue a striking circular showing a half-tone picture of a 66 inch Pancoast Ventilator 11 feet in diameter, which, with one of 84 inches, weighing over 1000 pounds and nearly 14 feet in diameter, were lately sold to the Crittenden Mfg. & Roofing Company of Minneapolis, Minn.

Customer—Do you keep the CALIFORNIA ARCHITECT AND BUILDING NEWS? STATIONER—No, we sell it.

Joseph Budde, manufacturer of sanitary appliances will be found at his old quarters, 575 Mission street, he invites the public to visit his show room as his motto is "First class work, low prices and two years guarantee for all my work," what more can be asked of any dealer.

She—Will you come home to dinner with me? Oh, no! I have my business suit on. SHE—Well, what of that? Don't you mean business?

No material has so strong an affinity for iron and steel as pure, soft flake Graphite, and for bicycle chains and sprockets there is nothing equal to it. The Dixon Crucible Co., Jersey City, N. J., selects its choicest material from unlimited stocks, and after analyzing all other cycle chain lubricants in the market that it could find, does not hesitate to say rhat Dixon's No. 691 Cycle Chain Graphite is absolutely without an equal for preventing rust and wear of chain and for insuring ease and comfort in riding. Mr. Tom W. Winder, the man who rode 21,000 miles around the borders of the United States, was offered all sorts of chain lubricants, and Dixon's was found superior to anything offered. He says: "It saved me much hard work, as its application never failed to cause an easy running chain." No. 691 is the improved shape, and fits the tool-bag easily. If your dealer does not keep it, send ten cents for a sample, and you will never regret it. Dealers will receive a sample free of charge by sending their business card.

CITY BUILDING NEWS.

Baker near Sacramento. Alterations and additions; owner, Mary E. Finney; architect, A. J. Barnett; signed, Oct. 19; filed, Oct. 21; cost $2624.

Bryant near 3rd. To build engine house; owner, City of San Francisco; architect, C. R. Wilson; contractor, A. Dahlberg; cost $6097.

Brannan near 5th. To build; owner, Heme M'fg. Co.; contractors, Campbell & Pettus; cost $1200.

Bush near Kearny. Additions and alteration; owner, City of San Francisco; architect, C. R. Wilson; contractor, A. Campbell; cost $2788.

Bush near Jones. Alterations and additions; owner, L. Aurbach; architect, Jas. E. Wolfe; contractors, Blanchard & McDonald; signed, Oct. 12; filed, Oct. 14; cost $1040.

California near Larkin. Alterations and additions; owner, William J. Helm; architect, W. H. Hamilton; contractor, William Bell; signed, Oct. 8; filed, Oct. 10; cost $1829.

California near Baker. To build; owner, Jeremiah Lynch administrator of estate of Eudora V. Smith; architect, J. H. Jordan; contractors, Elder & McLaughlin; signed, Oct. 15; filed, Oct. 20; cost $3620.

California and St. Mary. Additions; owner, A. Grapo; contractor, J. E. Dunphy; signed, Oct. 20; filed, Oct. 20; cost $1300.

California near 25th Ave. To build; owner, Francois Bragg; architect, John Godart; contractor, W. R. Kenny; signed, Oct. 30; filed, Oct. 30; cost $1800.

Clay and Webster. Cold storage apparatus; owner, Cooper Medical College; contractor, Vulcan Iron Works; signed, Oct. 8; filed, Oct. 10; cost $1500.

Clement and 4th Ave. To build; owner, C. B. & Louisa M. Ryder; architect, John M. Curtis; contractor, C. Anderson; signed, Oct. 14; filed, Oct. 20; cost $4670.

Devisadero street. To build; owner, E. R. Myrich; architects, Shea & Shea; contractor, J. D. Hannah; signed, Oct. 21; filed, Oct. 27; cost $2755.

Eighth Ave. near Clement. Cottage; owner, Geo. F. Carway; contractor, Ed. Girley; signed, Oct. 7; filed, Oct. 8; cost $1656.

Eighteenth near Sanchez. To build; owner, Mrs. Elizabeth Wallan; contractor, C. G. Gillespie; signed, Oct. 7; filed, Oct. 8; cost $2000.

Ellis near Webster. Alterations and additions; owner, Richard and Emma Ilatele; architect, A. Hildebrand; contractor, L. D. Frichette; signed, Oct. 21; filed, Oct. 22; cost $1462.

Fifth near Stevenson. Brick and terra cotta work five-story brick; owner, John F. Royd; architects, McDougall & Bro.; contractor, Thos. Butler; cost $7540. Carpenter work; contractor, A. Jackson; cost $9282. Cast and wrought iron; contractor, James McCrosson; cost $4031. Plumbing, etc.; contractor, W. F. Wilson; cost $1997.

Folsom near 20th. To build; owner, Michael J. O'Reilly; architect, Jas. S. Brady; signed, Oct. 19; filed, Oct. 20; cost $2800.

Folsom street Wharf Pier 12. Sheds and improvements; owner, Board of Harbor Commissioners; contractor, Thomas Day & Sons; cost $6649.

Fremont near Market. Carpentry, mill work, etc.; owner, L. Guggenheim & L. Mack; architects, Percy & Hamilton; contractor, Thos. McLachan; signed, Nov. 9; filed, Nov. 11; cost $11,090. Brick, terra cotta work, etc.; contractors, Richardson & Gale; cost $1874. Excavating and removal of old building; contractors, Keatinge, Leonard & Ransome; signed, Nov. 9; filed, Nov. 11; cost $5340. Iron and street work; contractor, Dyer Bros.; cost $6130.

Golden Gate Ave. near Van Ness Ave. To build; owner, John De Witt; architects, Smith & Freeman; signed, Nov. 9; filed, Nov. 12; cost $1760.

Guerrero and Market. To build; owner, M. C. Taylor; contractor, B. R. Van Dusen; signed, Nov. 7; filed, Nov. 7; cost $11,300.

Houston near Jones. To build; owner, A. Paladini; contractor, H. R. Schmuckert; signed, Oct. 28; filed, Oct. 29; cost $8517.

Illinois near Napa. Alterations and additions; owner, Jas. F. McDonald; architects, Herman & Swain; contractor, C. J. Anliwiller; signed, Oct. 19; filed, Oct. 19; cost $965.

Ingleside Race Tract. Redwood tank; owner, Pacific Jockey Club; architect, T. J. Welsh; contractor, Pacific Tank Co.; signed, Oct. 14; filed, Oct. 16; cost $1408.

Jackson near Sansome. Alterations; owner, D. Ghirardelli; architects, Wm. Mooser & Son; contractor, M. C. Lynch; signed, Nov. 4; filed, Nov. 4; cost $995.

Lake View, block 25, lot 25. Two-story frame; owner, E. H. Bode; architect, W. J. Cuthbertson; contractor, J. W. Fish; signed, Oct. 13; filed, Oct 14; cost $1865.

Larkin near Jackson. To build; owner, Lorenzo M. Perez; architects, Reid Bros.; signed, Oct. 5; filed, Oct. 15; cost $2880.

Laguna and Birch. Alteration and additions; owner, Mrs. M. C. Dresser; contractor, Chas Kuehig; signed, Nov. 10; filed, Nov. 13; cost $1957.

Lyon near Grove. To build; owner, L. H. Cox; contractor, Ed. Cox; signed, Oct 12; filed, Oct. 13; cost $3700.

Lyon near Hayes. To build; owner, L. H. Cox; contracto, Ed. Cox; signed, Oct. 12; filed, Oct. 13; cost $3700.

Lyon near Hayes. Carpenter work, etc., except plumbing; owner, L. H. Cox; contractor, L. B. Schmid; signed, Oct. 12; filed, Oct. 14; cost $7644.

Market and Seventh. Improvements in Odd Fellows Building; owner, I. O. O. F.; architect, E. J. Vogel. Carpenter work; contractor, L. Schmid. Plumbing; contractor, G. M. Eastman. Marble; contractor, J. Musto & Son. cost $2000.

Market near 11th. Three-story brick; owner, City of San Francisco; architect, C. R. Wilson; contractor, Thomas Butler; cost $15,975.

Noe and 23d. To build; owner, Chas. Bardenhagen; architect, E. J. Vogel; contractors, Petterson & Person; signed, Oct. 15; filed, Oct. 17; cost $2849.

O'Farrell near Stockton. Additions to Delmonico; owners, Gutzeit & Malfanti; architects, Pissis & Moore; cost $1000.

Pt. Lobos Ave. and 1st Ave. To build; owner, Margaret J. Wheeland; architect, C. J. Colley; contractor, Ed. Cox; signed, Oct. 31; filed, Nov. 4; cost $6450.

Page and Shrader. Two two-story frame dwellings; owner, J. E. Doolittle; architect, E. J. Vogel; contractors, Petterson & Person; signed, Sept. 30; filed, Oct. 15; cost $4469.

Page and Steiner. To build; owner, Ella A. Judson; architect, R. H. White; contractor, John Furness; signed, Oct. 19; filed, Oct. 20; cost $5585.

Powell near O'Farrell. Plastering work; owner, Geo. D. Toy; architects, Herman & Swain; signed, Oct. 16; filed, Oct. 16; cost $1075.

Powell and Ellis. Electric work four-story brick; owner, Royal Eagle Distilleries Co.; architect, E. Kollofrath; contractor, L. B. Hetty; signed, Oct. 24; filed, Oct. 24; cost $274.

Powell and Ellis. Interior cabinet work; owners, Royal Eagle Dist, Co.; architect, E. Kollofrath; contractors, S. & G. Gump; signed, Oct. 27; filed, Oct. 27; cost $5430.

Post near Stockton. Electric elevator; owner, Improved Order of Redmen; contractor, Fraser Electric Co.; signed, Nov. 18; filed, Nov. 18; cost $3700.

Pt. Lobos Ave. near 11th Ave. To build; owner, Sophia Hansen; architect, Martens & Coffey; contractors, Relt & Ahlgren; signed, Oct. 13; filed, Oct. 16; cost $2700.

Sacramento near Van Ness Ave. Brick work for stable; owner, Claus Spreckels; architect, Reid Bros.; contractor, Rae Building Co.; signed, Sept. 26; filed, Oct. 8; cost $1190 per M. about $2000.

Sacramento near Van Ness. Grading, etc.; owner, J. Z. Pasadus; Architects, Pissis & Moore; contractor, Peacock & Butcher; cost $2995.

Sacramento near Van Ness. Carpentry, tinning, etc.; owner, J. Z. Pasadus; architects, Pissis & Moore; contractor, Robert Smilie; cost $9887. Sandstone contractor, J. D. McGilvray; $4500. Plumbing; contractor, Ickelheimer Bros.; $2449.

Second Ave. near Clement. Cottage; owner, James McElroy; contractor, W. W. Rednall; signed, Oct. 25; filed, Oct. 25; cost $1650.

Sixteenth and Albion. Plumbing, gasfitting, etc.; owner, S. Bear; architects, Salfield & Kohlberg; contractors, Ickelheimer & Bros.; signed, Oct. 12; filed, Oct. 14; cost $1185.

Sutter and Hyde. Tiling work; owner, Dr. J. Rosenstern; architects, Salfield & Kohlberg; contractors, Mangrum & Otter; signed, Oct. 24; filed, Nov. 25; cost $2800.

Sutter and Hyde. Glass and glazing; owner, Dr. J. Rosenstirn; architects, Salfield & Kohlberg; contractors, Campbell & Pettus; signed, Oct. 15; filed, Oct. 23; cost $1100.

Tehama near 6th. Alterations and additions; owner, Abbie Middleton and Mary Barada; contractor, F. V. Acker; signed, Oct. 23; filed, Oct. 27; cost $1100.

Twenty-second near Castro. Carpenter work; owner, M. C. O'Shannessy; architect, W. J. Cuthbertson; contractor, W. Plant; signed, Oct. 20; filed, Oct. 22; cost $3065. Electric wiring; contractor, McWhirter Electric Co.; cost $60 50 Painting; contractor, Delos Wilson; cost $320. Plumbing; contractor, M. Fisher; cost $417.

Twenty-fourth. and D. Removal of Casino Building from Park; owner, Stewart Menzies; architects, Townsend & Wyneken; signed, Oct. 14; filed, Oct. 15; cost $2250.

Twenty-fourth and Sanchez. To build; owner, Mrs. Margaret Curtin; architect, C. M. Rousseau; contractor, R. J. Pavert; signed, Oct. 22; filed, Oct. 23; cost $4500.

Twenty-fourth near San Bruno Ave. Cottage; owner, Thomas Doyle; contractor, Allen De Lair; signed, Oct. 18; filed, Oct. 28; cost $1125.

Twenty-fourth Ave. and D street. Alterations and additions; owner, Stewart Menzies; architects, Townsend & Wyneken; superintend, Peter Hamilton; day's work; cost $12,000.

Thirteth near Warren. Cottage; owner, Leonard Haas; architect, C. M. Rousseau; contractors, Sarcander & Thompson; signed, Oct. 27; filed, Oct. 28; cost $1200.

Union near Scott. To build; owner, Mary I. Bradford; architect, A. C. Schweinfurth; contractors, Richardson & Gale; signed, Oct. 17; filed, Oct. 18; cost $2745.

Union nr Scott. Plumbing; owner, Mary I. Bradford; architect, A. C. Schweinfurth; contractor, W. F. Wilson; signed, Oct. 17; filed, Oct. 19; cost $365.

Van Ness Ave. Junction with Lewis street. Wharff construction; owner, Fortana & Co.; contractors, Warren & Malley; cost $15,000.

Waller near Shrader. To build; owner, Mary Paolinelle; contractor, Thos. Vodden; signed, Oct. 17; filed, Oct. 24; cost $2000.

Welsh near 4th. To build; owner, Sarah Green; architect, A. J. Barnett; contractors, R. Doyle & Son; signed, Oct. 16; filed, Oct. 29; cost $5919.

York near 21st. Cottage; owner, Geo. A. Heuer; contractor, H. Grieb; signed, Oct. 14; filed, Oct. 15; cost $2150.

The California Architect and Building News.

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PREMISES OF NEW SAN FRANCISCO POST-OFFICE, AUTHORIZED BY ACT OF CONGRESS, MARCH, 1887.

EXISTING POST-OFFICE BUILDING AT SAN FRANCISCO, CALIFORNIA.

THE attention of architects is called to an advertisement in this number of the desire to obtain an architect on the part of the Trans-Mississippi and International Exposition at Omaha, Neb. As the cost of this Exposition is estimated at $1,000,000, it may be anobject to some of our architects to obtain the situation, though the inducements offered are rather indefinate.

AT THE last meeting of the San Francisco Chapter of the American Institute of Architects it had up for consideration a draft for a bill to be presented to the next Legislature on the subject of obtaining plans for public work, in place of the present absurd and totally inappropriate statute on that subject—which, as all those interested, know, exhibits an entire want of cognizance of an architects status and duties;

the defects of every part of it are so palpable that it needs no further criticism. To show how utterly useless it is, it is practically a dead letter; we have yet to know the first case in which its provisions have been carried out. In the draft for a new law the Chapter has endeavored to look paramountly to the interests of the people; for it will be found that the interests of true architects and of the State are identical.

The principal points of the proposed new law are:—

First—A distinction has been made between architectural and engineering works, between buildings and bridges, etc. In one case the services of an architectural expert is required, in the other an engineering expert; so that there may be no clashing in regard to these matters, such as we find often in national work.

Second—A limit of $20,000 has been placed below which no competitive plans are required, so that a Board or any other authority may appoint an architect or engineer for small work; saves expense both to the people and to the professionals.

Third—Sketch plans and sketch or outline specifications only are required—and none other can be called for, for the reason that these indicate both to a layman and a professional just as much as the most elaborate working drawings as far as selecting the best plan or design goes which can be the only object in having a competition at all. The object of a competition must be to get the best plan, not the best and most experienced architect, for if the latter were the case, competition would be needless, and the architect would be chosen for the work he may have executed.

The report of the expert will show which plans can be built within the appropriation—there is no trouble in making a very close approximate estimate from sketch plans and specifications to an experienced man.

Fourth—The value and number of the premiums have been stated so that uniform conduct may be observed throughout the State, and that first-class architects may put their efforts forwards for the interests of the people, and it is made mandatory because, otherwise, some authority having a low class man picked out as their architect could then by offering nominal premiums shut out first-class men from competing and giving a walk over to their third class man.

The total value of the premiums have been taken at one per cent as being the generally recognized value attached to sketches and for all cost over $200,000 only one-half per cent is taken, because the larger a building is, generally is there less work in proportion, and possibly over one-half per cent might be more than the value of the services rendered.

Fifth—It will be noticed that an expert must be consulted in all cases. The plans generally chosen by Boards without consulting an expert is sufficient evidence of the necessity of this clause.

Sixth—The principle adopted in regard to payment of the chosen architect is, that the buying of the sketch plans is one complete transaction and the appointment of an architect to carry on the building is another. The author of the adopted plan is paid one per cent on the cost of the *entire work when completed* not only on the one appropriation when there may be others needed to complete the work. That completes the Board's transactions with him until such time as the work may proceed.

Seventh—All other plans are returned to their authors at once—the people have obtained all the matter from them that they are justly entitled to when they are used as means of comparison with the successful one—if there are any good points in them to be culled, there is nothing in this law preventing the Board from buying from the owners such points; which should be considered copyrighted till then.

Eighth—The author of the accepted design is made the supervising architect of the structure, for the reason tnat he is the only one who can carry out the design as was intended in his preliminary plans, and his remuneration is made four per cent for his working drawings and supervision, making a total of five per cent when including the one per cent for preliminary plans; because that has been universally conceded to be a fair remuneration of an architect's work from time, one might say, immemorial. It will be noticed that, as preliminary sketches must embrace a design for the whole structure complete, he gets one per cent on the *total* cost of the structure, while the four per cent is only chargeable on so much as may be expended as the work proceeds, which seems eminently just.

Ninth—The necessity for a superintendent of works, who shall be always present on the building, is now so well recognized that no further comment is necessary on the paragraph making his appointment mandatory.

Tenth—The penalty attached to the non-fulfilment of the present statute is making all contracts null and void when said statute is violated. This works an injustice on the innocent contractor and strikes the wrong party. The guilty parties are the officials; and any officials not attending to business on matters such as in question deserve to be deprived of the office which they are manifestly incompetent to fill; any attempt to do this however would meet with determined opposition. So that making *all* of their acts illegal that did not conform to this Law is the next best thing.

The whole bill seems to the point and we hope to see it passed by the legislature, and thus inaugurate an era of better feeling and better architecture in the matter of getting plans for public buildings than is possible under the present abominable and impossible statute.

Else where we give the proposed new bill and the present one for the benefit of our readers.

GOVERNMENTAL ARCHITECTURE.

THE title of "Surveyor of Public Buildings" was given to James Hoban, Superintendent of the Capitol, in 1794, which office he held for twenty-five years. The same title was conferred upon Benjamin H. Latrobe when he succeeded Hoban and became the architect of the Capitol. After Latrobe retired, a Government "Commissioner of Public Buildings" was appointed. But no such office existed after 1830. The Government buildings erected during the first part of the century in Washington and various parts of the country were conducted, somewhat as the capitol was, under the direction of Cabinet officers or Congressional commissions. The buildings comprised a few of the department offices and custom-houses, sub-treasuries, the mints, and a building in Philadelphia for the United States Bank. The latter went out of use with the abolition of the bank. Among those that were retained in use are the Interior Department, the Treasury Department, the Postoffice Department at Washington, the Mint at Philadelphia, and the Sub-Treasury at New York.

It was about the year 1850 that something approaching a system was adopted. The public buildings were then erected under the direction of the War Department, and an office was established under the charge of a major of United States engineers. The plans were made under his direction by architects who simply acted in the capacity of draughtsmen. An officer of engineers was assigned to each building as "Engineer in Charge." Mr. Walter while architect of the Capitol extension, had been charged with making plans for additions also to the Interior Department Building (Patent Office) and the Postoffice, and was later directed to design the extensions of the Treasury Building; all of which, as to exterior, were, in the main, continuations of the old designs. The extension of the Interior Department (generally known as the Patent Office) and Post-office were carried out under his superintendence. The Treasury Building was intrusted to Mr. Young, who was then named the "Supervising Architect of the Treasury Department," and under whose care the south wing of the building was built. This was the commencement of a system of management which has been greatly enlarged and still exists. Mr. Young was succeeded by Isaiah Rogers, of Cincinnati, a very distinguished architect, who had designed the Tremont House, at Boston, the Astor House at New York, the Merchants' Exchange, New York, and the Burnett House of Cincinnati. Mr. Rogers was succeeded by A. B. Mullett, a young architect of Cincinnati of little experience. Under his administration all the Government buildings being erected in the North were put under his sole direction, and civilians were appointed as local superintendents.

During this period of twelve years the Government buildings of New York, Boston, Philadelphia, Cincinnati, St. Louis, and Chicago, and a hundred others of lesser importance, were commenced, including the State, War, and Navy Department building at Washington. The cost of those mentioned was upwards of thirty millions of dollars, and the aggregate cost of all the buildings erected under this architect's administration was over one hundred millions of dollars.

Mr. Mullett was succeeded in office by William A. Potter, a young but experienced architect of New York. He was obliged to finish Mr. Mullett's work, and in the designing of new Government buildings attempted to endow them with artistic beauties, to which the office had before been a stranger. But he found it to be a herculean task to reform its methods of design. He, however, succeeded in leaving his impress upon some of the smaller buildings that were designed during his term, notably those at Covington, Ky., and Fall River, Mass. After a time he resigned in despair, and was succeeded by James G. Hill, of Boston, who had been head draughtsmen. Mr. Hill was entirely at home in the routine of the office, and made some improvements in Mr. Mullett's methods. He was succeeded by M. E. Bell, of Des Moines, Iowa.—*Self Culture.*

CHEAP TELEPHONE SYSTEM.

FOR a fee of from two to eight cents a message, one may talk from even the smallest of Swiss towns over a long-distant telephone system to any part of the country. Of course the Government owns the system.

HOME ARTS IN THE CUMBERLAND MOUNTAINS.

"The makers are the poets; ply your skill,
Coleridge and Southey watch from yonder hill."

HOME ARTS have become so firmly associated with the upper regions of the Albert Hall, where their annual exhibition is held, that many people hardly realize the wide contrast this, their town abode, forms in every respect to one of the most celebrated producing centres of such work, the settlement at Keswick, among the Cumberland mountains. The results of this work are known far and wide, wherever beauty of design and perfection of workmanship are valued, but the workers at home and their work in process (representing as it does a solid national art movement among country folk), are by no means familiar to the many admirers of the beautiful results of these well-spent winter evenings, for few people dare the imagined rigors of the Lake District during winter months. That such imaginings are somewhat foolish, we who live amid the mountain glories of winter know full well; but it is impossible to regret that at *some* time in the year this country should be left to its own resources, and that the boatman and the shepherd with the few others whose homes and toil are of the mountains, should have the hillsides and the tarns to themselves in all their winter beauty. To them it is given to see the sun die down behind Grisedale, with its many hues of orange and crimson reflected in the black ice of Derwentwater; they hear the owls hoot and see the stars come out one by one above snowy Skiddaw—scenes that should call forth all the sense of beauty that is in a man, and enable him to reach unto something in art which is "the expression of man's delight in the works of God." That this *should* be the case, no one can doubt, but that it *is*, is quite another matter, alway excepting unusual dispositions and cases. As a rule, the hardy north-country folk are by no means easily impressed with the beauty of their surroundings; fond of them to a fault, yes—but sensitive to their influences—no; and, indeed, one great reason for the commencement of this pursuit after beauty in the minds of the promoters of this art movement, was to train the eye and open the heart and mind to all the wonderful surrounding beauty of form and color which every season reveals in its infinite variety to the dwellers around mere and mountain.

This may be called the æsthetic aim of our mountain school of art, but its practical object, now successfully attained, was to find remunerative employment for working men and others in spare hours, or when out of work, by teaching them such art industries as can be profitably carried on in their own homes; the payment for such work from the Keswick School is 6d. an hour, and a good workman can easily add £1 a week to his wages by spending his spare time in this way, instead of in that "friendly crack" in the parlor of the "Cock and Dolphin," where the connection with wage-money is subtraction instead of addition.

Our view of the school took place one January afternoon and evening, a view which had been deferred till the permanent building should be established, which, for many reasons, gives an importance and dignity to the work carried on at Keswick. The art work of the classes commenced in 1884, but it was not till the April of 1894 that its abiding home was a possibility. For many years the lessons were carried on in an ordinary parish room under great difficulties for want of proper accommodation, but, though the school in itself has always been self-supporting, it was not possible

to think that it could produce the home of its own, which the committee felt to be essential to its enlarged opportunities." Also they were of opinion that, if the School was to maintain its position and become a means of permanent education to the village of Keswick, it was impossible either to meet the demands of the public or the requirements of the worker, with the very limited accommodation which their temporary premises afforded. So the had recourse to subscription (being able from the school funds to contribute £200, no mean surplus over working expenses), and in a short time over £1,000 was raised, the result being that a lovely unpretentious building grew up on the banks of the Greta, a memento of the old lake-country style of domestic architecture, with a character and charm of its own.

To see the workers at work, one must, of course, visit the Keswick School of Industrial Art in the evening, but it is well worth seeing the place by daylight, to judge of its beautiful position and adaptability for its requirements. Just outside the town over the Greta Bridge, we come to a neat gateway and garden, and a few yards bring us to the door of the pretty little two-storied building of lake country slate, with its outside winding staircase and picturesque wooden balcony; it looks up to the homes of Southey and Coleridge; underneath the balcony are words which represent, as it were, the keynote of its existence:—

"The loving eye and patient hand
Shall work with joy and bless the land."

The ground-floor of the building is entirely devoted to the different workshops, where at present all is silent, but which, a few hours later, will be alive with the ring of the anvil, the beating of brass, and the more silent chip of the woodcarver's tools, as tendril and leaf grow from solid blocks under deft workmanship. The winding tower staircase was specially designed as a separate entrance for the use of visitors to the showroom, so that the workshops should be safe from invasion, and as it is entered the eye is quite dazzled by the glitter, glisten, and sheen of the metal work, upon which the firelight and the departing sunshine are shedding every imaginable lustre. The motto of this rare showroom (the term is most unsuitable to it) is contained in Browning's words:—

"Oh! Earth, as God has made it, all is beauty!
And knowing this is Love, and love is duty."

Such a mass of magnificent outline and extraordinary beauty of shadow is seldom to be seen from any one point of view, much less from a showroom window! But those who have been instrumental in opening many unseeing eyes to their surroundings, would insist that "Art is the expression of man's delight in the works of God," and that the temple of their art, if one may say so, should always be within sight and reverence of the beauty God has made.

So we pass as a matter of course from the cause—Nature—to the effect of its beauty—Art. The sun goes down, and the lights are lit, and every beautiful tint of metal, variety of design and form glance down upon us from walls and tables. It is not intended here to catalogue the many beautiful things that come from this "Home of Arts" in the mountains, but a few words must be devoted to design, as it is set forth in the exquisite copper screens, the endless bowls, the ever-varying trays, sconces, plaques, and wood carvings, the offertory dishes, and service-book backs, to say nothing of a unique coal-box, covered with the fishes of the coal period.

The aim of the promoters of the school is to bring, as their prospectus states, "the designer and workman into such a relation that they become identified as was the case when the arts were truly living." Every one now entering this school is *obliged* to learn drawing, and the dream of its promoters will not be realized until every article produced can be "the handiwork of one man from beginning to end." But at present design in rural hands could not compete for an instant at metropolitan exhibitions, and the Keswick workers know full well that, in this department especially, they owe their exceptional position in home arts to the great ability and untiring energy of one woman, Mrs. Hardwick Rawnsley. Original designs, and designs, copied from anything that is good in any country, age or style, have been her untiring care; ancient Indian designs with their lovely lotus buds and leaves; ancient Coptic designs, strangely recalling those of the oldest Cumberland wood-carving; embroidery, metal work, are all called into the service of home art, by the endless pains and talents of her, the originator or adapter as the case may be. So far, no rustic genius in design has been produced from the art workshops of Cumberland, and until that is so, the Keswick School of Art can never be called quite self-supporting, as the work of Mrs. Rawnsley in connection with it represents the unpaid services of a designer of the hightest class.

But the January evenings creep on quickly, and before we have had time to do more than glance at the Museum, with its Swiss and Italian specimens and books for art study (a sweet reposeful little room where a man might think out his feeling for beauty), or chat with the excellent secretary in her comfortable business room, the hour for this recreation, which is still work, arrives: the men and boys flock in, some fifty in number, and the school is alive with industry and interest.

It must of course be carefully remembered that these "home arts" are in great part done absolutely *at home* in the cottages and homes of the students, but every night there is a class at the school of some sort, and on Thursday nights all its teaching is in operation.

The first room we enter is that for the brass and copper workers, a long chamber with low tables in centre and tables all round the walls; at the first of these sit several boys, tracing from the linen patterns which are no small evidence of Mrs. Rawnsley's endless labour, about a couple of hundred being always obtainable.

On the wall facing your entrance are the words heading this article:

"The makers are the poets; ply your skill,
Coleridge and Southey watch from yonder hill."

One man is at work on what is known as "cut diaper work"; another is employed in hammering out a magnificent design on copper from the Chiesa di Frari at Ravenna; all are in sober, interested earnest.

We pass on to the wood-carving room, where a teacher is at work showing faults and pointing out virtues, among which, first and foremost in excellence, either in wood or metal, may be roughly enumerated clean tracery and good quality of groundwork, the groundwork to be in relation and proportion to pattern, the excellence of the whole design to be decided by its adaptability to the purpose for which the article in question is intended. Here in the wood-carving room we come across a beginner, who having just learned the use of his tools, naturally the first requisite, is preparing to carve a single leaf out of a little block of wood for practice.

A door is opened and the terrible noise at once announces that we are in a smiths' shop, where a lesson is being given by an amateur. This man, with brisk manner and bright intelligence, is one of the enthusiasts of the place; he has his class well in hand; no softening of correction is bothered over by this local art teacher of the north countrie! "Why doa'n't ye beat it reg'lar all round as a've always toald ye?" is the style of reproof administered, and accepted without a word. A few more teachers such as this man, and these workshop schools might be the property of every village. At one time the pursuit of the silver trout and laying the snare for the wily rabbit (the only form in which love of nature seems naturally to come out in a rustic) occupied all the spare hours of this man, but he has, since his work at the school in the evenings, entirely deserted his former pastime for the less venturesome and more profitable work at the class. Though he earns a certain amount like the others thereby, his *teaching* is a free gift, and his enthusiasm a valuable power among his associates. Here we have the sort of man, as to intelligence at all events, for whom Ruskin wrote his *Fors Clavigera;* of which book our workman expressed his approval with the solid patronage of possession, having won a copy as a prize, "Ay—it's a good book!"

Here the beautiful bowls are shaped upon which afterwards some lovely design is to grow, and here too are made the tools for every branch of work in the school. It is the proudest achievement of Keswick that absolutely all tools used are made at home, and here the ingenuity of the men that does not amount as yet to design is often great in inventing some little turn or twist in shape which they know to be specially adapted to their wants in working. There was a triumphant moment among the workers when the school was applied to by another in Bradford as to where it could get a certain tool which Keswick was known to possess. Needless to say the answer went back with pride "all our tools are home-made."

But a visit to the Home Arts School in Cumberland could not in any sense be considered complete without seeing the "finishing shop," as it is called, for which there is not room in the school at present, and to which a little room across the Greta Bridge has been devoted. The man whose special province this department is gave an interesting account of his branch of the trade, and a very important one it is, for here everything made in the school is at present put together; even articles virtually in one piece must be joined somewhere before thry can become candlesticks and teacaddies. Here, also, them important business of polishing is done, and it seems as if "finishing" was likely to be a difficulty in quite realizing the dream of home arts, for in the past ten years, when so many excellent workers have been found, only two finishers have attained to any perfection. It is difficult to say why, unless it be that the work is not so interesting in character, and requires great exactness in detail. Thus it would be impossible that the workman in this department should not, to a certain extent, know his own value to the school, more especially as it was pointed out to him by an offer from a Birmingham tradesman of work to the amount of £40 a month; but "Noa," says the devoted Cumbrian, "t'schule mun cum fust."

And first, indeed, in the hearts of its workers the school does come. "As surely," says Mr. Rawnsley, "as the country side is kept at its deadly dulness for the labouring man on a winter evening, so surely will the pith and marrow of our English rural life find its way up to the bewildering cities, and lose itself, its simplicity, its freshness, its very life, in the flare and glare of our monster towns." The effort to releave this monotony in dull little country places in the winter evenings has been eminently successful, and the people recognize the benefit, and give it their attention, love and gratitude.

I have thought it unnecessary to quote statistics to any minute degree, but some mention of them is necessary for fear of a merely æsthetic valuation being attached to this movement, therefore it may be noted that the little town of Keswick annually produces and sells some £700 worth of this art-work. Among the workers are men of all trades. Pencil-makers are numerous, as it is the special trade of Keswick, a trade that should be a very flourishing industry did not our Government get all their pencils in Germany, as one of the men indignantly remarked. But labourers, boatmen, gardeners, shepherds, tailors, and many another craft are all here banded together in pursuit of the beautiful and in devotion to their work; and there *is* among them, by reason of their teaching, something of the spirit of the Nuremberg wood-carvers of old, something of the attention to a tendril or a flower, which in its highest degree, gave fame to such a man as Benvenuto Cellini.

But whence has come this true spirit of art, whence has come this awakening sense of beauty? Without doubt a mountain race has it within itself, though deeply hidden away, and practically, one may say, non-existent. The spirit to rouse, the power to carry out, the energy and ability to overcome difficulties are absolute necessities for the awakening of enthusiasm, and it would be indeed a very half-and-half account of this art movement of the Fells if I failed to say, that to this power, in the chief promoters of the Keswick School of Industral Art, Mr. and Mrs. Rawnsley, the whole success of the movement is due.

Any why? Because they were not merely content with small ideals, but because the absolute best in art and the opening of the mind to its glorious treasures was their whole single-minded aim, and this, along with the preception, that to follow after the best in nature, in life, and in work, leads to the highest advancement of man, yea, even "unto the King in all his beauty."—*A. M. Wakefield in Forthnightly.*

NOTES AND COMMENTS

A Municipal Public-house—The municipal public-house which has been opened on the Gothenburg system by the Birmingham Corporation, will be a source of much interest to temperance and other orators. The drink is bought by the Corporation, and retailed by the manager, who receives a salary and has no interest in the amount sold. It it curious to see that a quart of beer is the limit of any one customer's consumption in the morning, but he can consume two quarts at night—so that the Corporation take a liberal view of the working-man requirements. It should be added that the house is not at Birmingham, but in the workingmen's village on the site of the new water-works scheme.

ILLUSTRATIONS.

The management of this journal desires to extend a cordial invitation to all architects on this coast and elsewhere to contribute designs for publication.

Drawings should be made with perfectly black lines on a smooth white surface. Good tracings, if made with black ink, answer the purpose.

The designs selected will be published without charge. All drawings, whether accepted or not, will be returned to their authors, who must bear express charges both ways.

PLANS of the Hall of Justice, Kearny street, Shea & Shea, Architects.

NOTICE OF MEETINGS.

SAN FRANCISCO CHAPTER, AMERICAN INSTITUTE OF ARCHITECTS, meets second Friday of each month at 408 California street.

SETH BABSON, Pres. W. P. MOORE, Vice-Pres.
OLIVER EVERETT, Sec. JOHN M. CURTIS, Treas.

SOUTHERN CALIFORNIA CHAPTER AMERICAN INSTITUTE OF ARCHITECTS, meets first Wednesday of each month at 114 Spring street, Los Angeles, Cal.

OCTAVIUS MORGAN, PRES. A. M. EDELMAN, Vice-Pres.
ARTHUR B. BENTON, Sec'y. AUGUST WACKERBARTH, Treas.

TECHNICAL SOCIETY OF THE PACIFIC COAST, meets first Friday of each month at Academy of Sciences Building.

GEO. W. DICKIE, Pres. W. G. CURTIS, Vice-Pres.
OTTO VON GELDERN, Sec. EDWARD T. SCHILD, Treas.

MASTER PLUMBERS' ASSOCIATION, meets every first and third Friday of each month at the Flood Building.

JAS. E. BRITT, Pres. J. L. E. Firman, Sec.

BUILDERS' EXCHANGE, Directors meet first Friday in each month at Mission and New Montgomery.

OSCAR LEWIS, Pres. JAS. A. WILSON, Sec.

MASONS' AND BUILDERS' ASSOCIATION, meet first Friday evening of each month.

ADAM BECK, Pres. M. V. BRADY, Sec.

BOOKS AND PERIODICALS.

LIPPINCOTT'S Magazine for December contains a complete novel called "A Chase for an Heiress"—it is somewhat out of the usual tract for a novel and some of the descriptions of the country around Santo Domingo are very fine; this is a novel that will be read with interest not only on account of the story itself, but because of the description of a part of the West Indies once so famous in History but at the present time almost forgotten. "Shutting out the Sea" contains much information of interest to the engineer as it describes some of the efforts made to prevent the ravages of the ocean waves to engulf our shores. As usual the magazine is full of short articles of interest.

SELF CULTURE, a Magazine of Knowledge, contains for December, 1896, an article on "American Architects and Architecture" extracts of which will be found in another column, it is fully illustrated with engravings of both the early and modern style of construction. This magazine which is certainly a departure from the beaten track of magazine literature cannot fail to be welcomed by a thoughtful class of readers; it is published by the Werner Company Chicago and New York.

THE FORTNIGHTLY REVIEW for December comes to hand, and as usual contains many articles of interest, among the number may be mentioned two that come at the present time as very appropriate "Lessons from the American Election," by Francis H. Hardy—the other "The Working of Arbitration" by H. W. Wilson. It is hard to make a choice where all the articles are so readable.

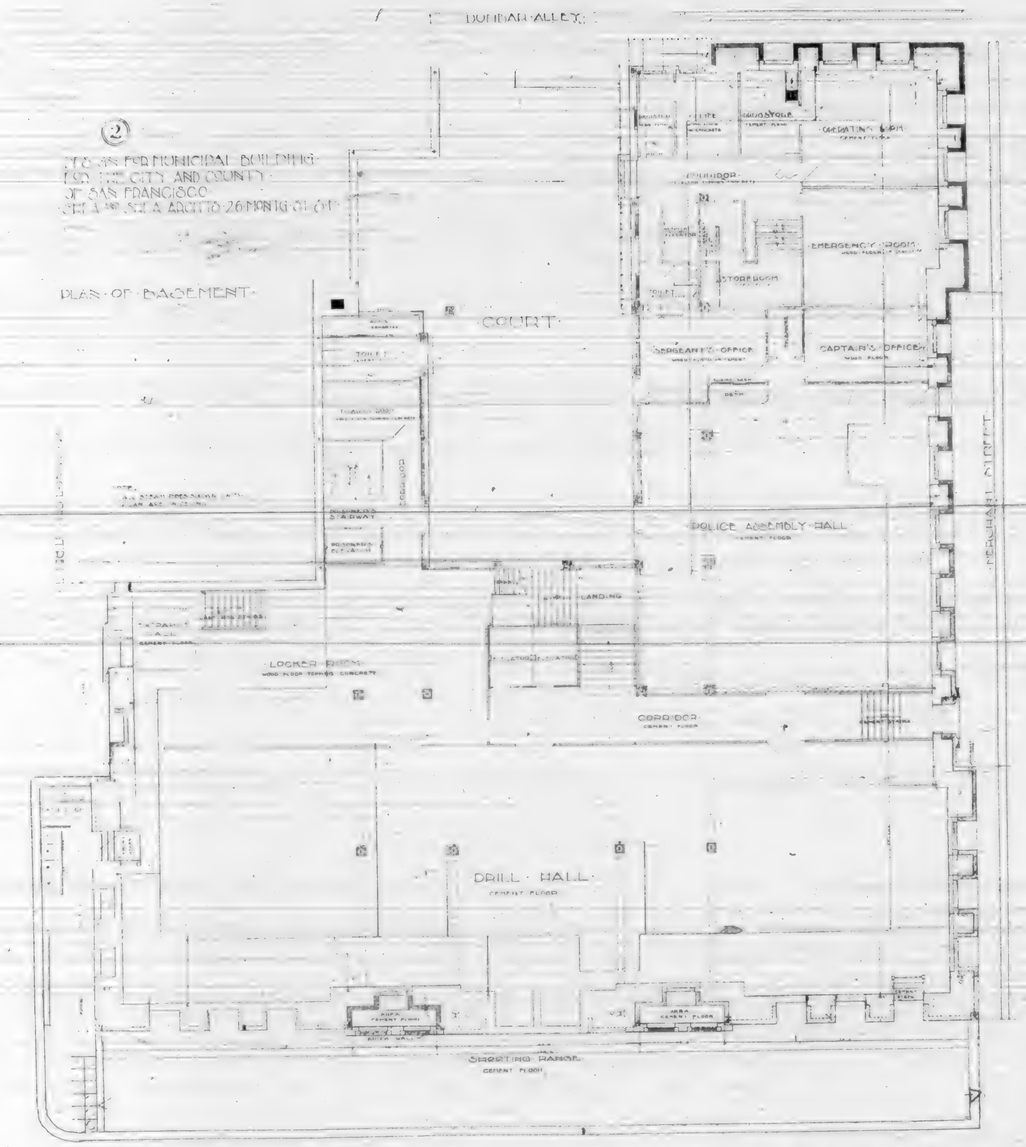
PROCEEDINGS OF THE PURDUE SOCIETY of Civil Engineering 1896. Purdue University, La Fayette, Ind.

This handsome pamphlet contains a list of the faculty of the Department of Engineering Purdue University as well as a list of the members of the Purdue Society of Civil Engineers. The table of contents show a variety of articles of interest to engineers, and one, "Fireproof as a Specialty," of peculiar interest to architects at the present time when the construction of fireproof buildings is so much discussed as well by architects as the public in general.

(2)

PLANS FOR MUNICIPAL BUILDING FOR THE CITY AND COUNTY OF SAN FRANCISCO. SHEA AND SHEA, ARCHTS. 26 MONTG. ST. S.F.

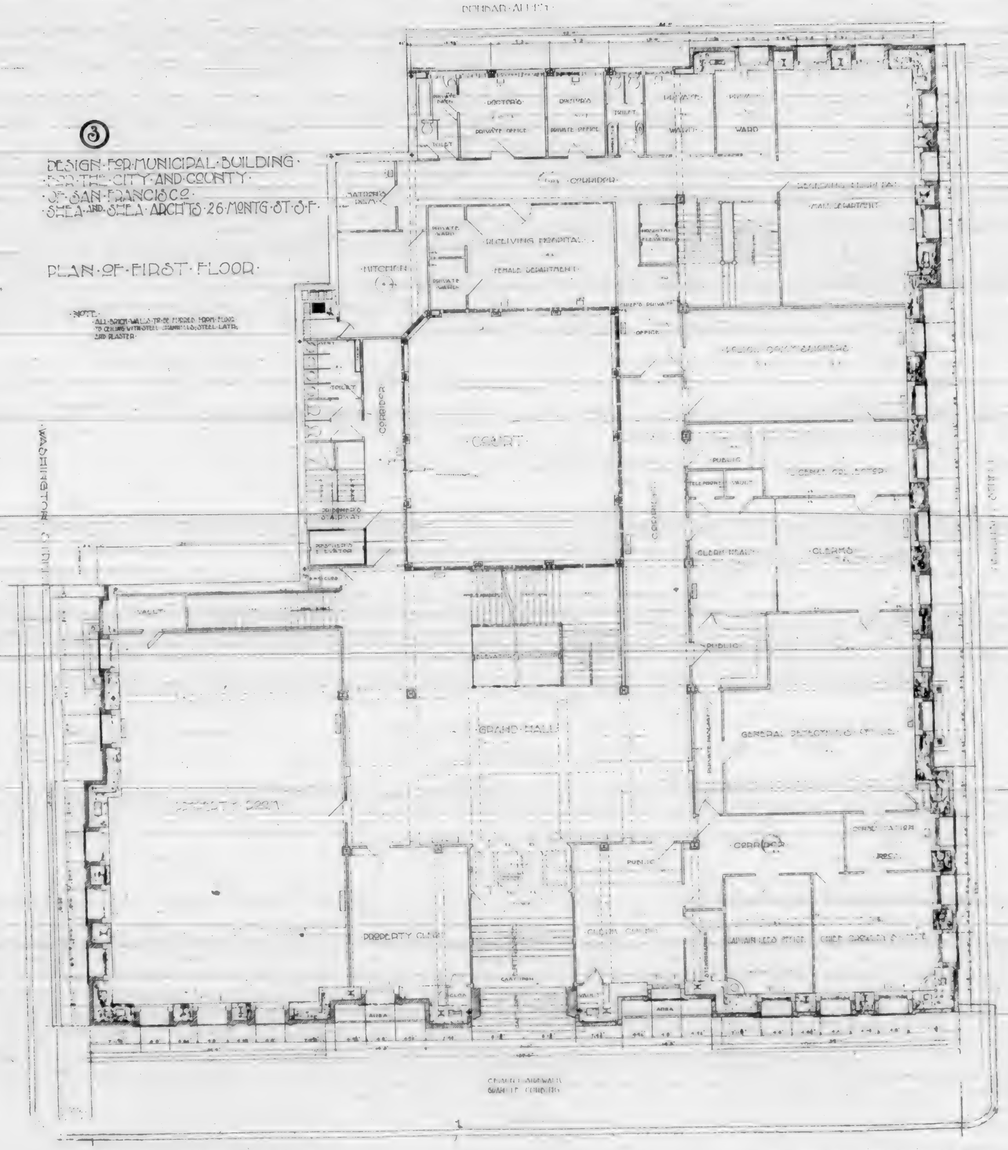
PLAN OF BASEMENT.



(3)

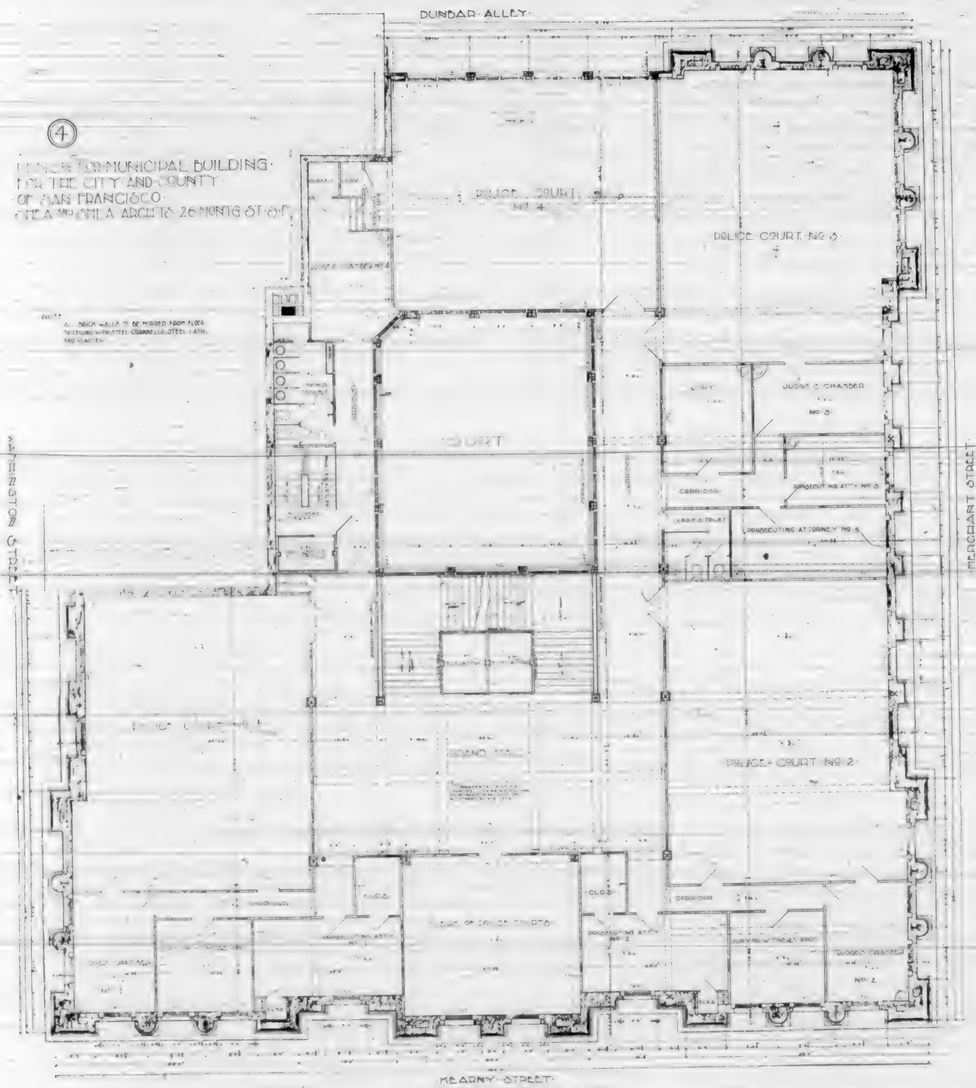
DESIGN FOR MUNICIPAL BUILDING FOR THE CITY AND COUNTY OF SAN FRANCISCO. SHEA AND SHEA, ARCHTS. 26 MONTG. ST. S.F.

PLAN OF FIRST FLOOR.



(4)

DESIGN FOR MUNICIPAL BUILDING
FOR THE CITY AND COUNTY
OF SAN FRANCISCO
SHEA AND SHEA ARCHTS 26 MONTG ST. N.Y.

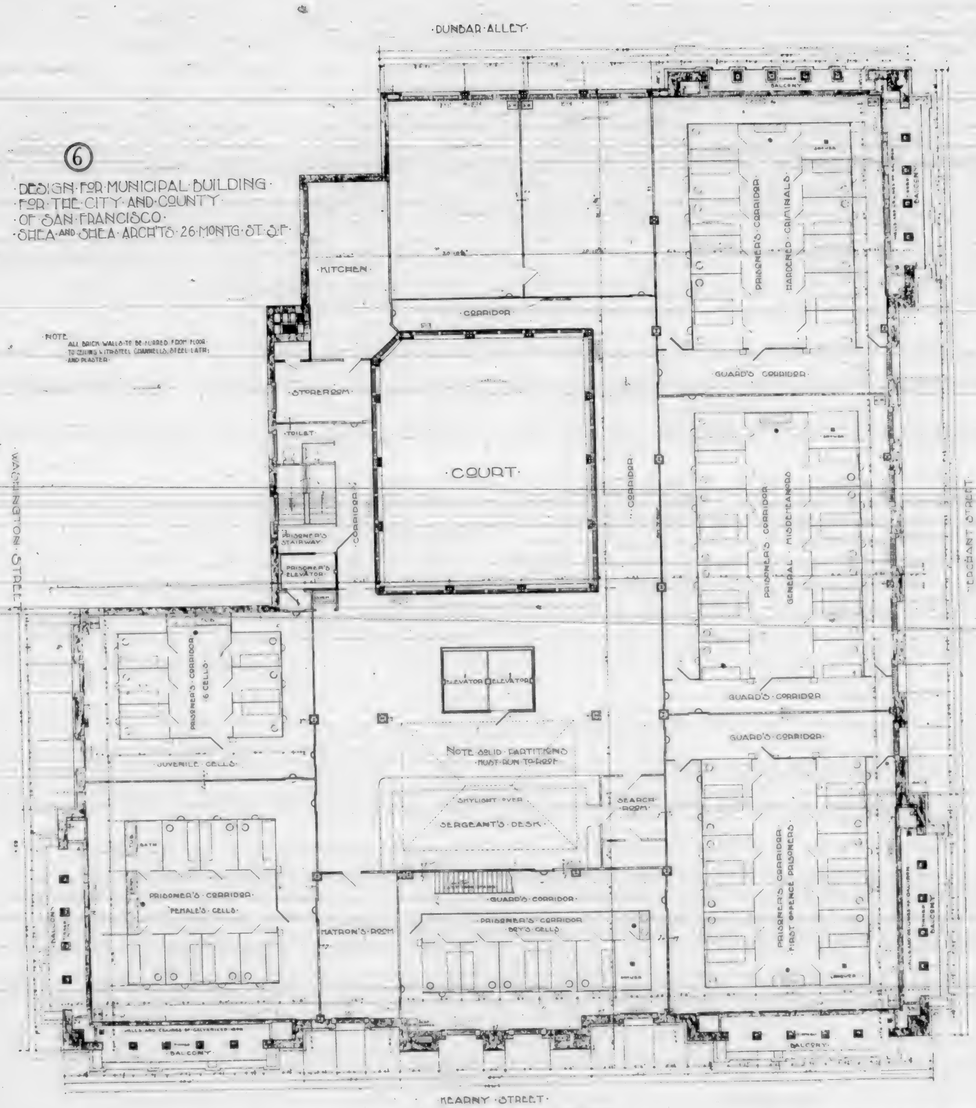


PLAN OF SECOND FLOOR

BRITTON & REY. PHOTO. LITH.

(6)

DESIGN FOR MUNICIPAL BUILDING
FOR THE CITY AND COUNTY
OF SAN FRANCISCO
SHEA AND SHEA ARCHTS 26 MONTG ST. N.Y.



PLAN OF FOURTH FLOOR

BRITTON & REY. PHOTO. LITH.

HALL OF JUSTICE

SHEA & SHEA, ARCHITECTS.

HOUSING OF PEOPLE OF SMALL INCOMES.

No. 5.

BUILDING REGULATIONS.

IN THESE series of articles we have, so far, considered laws and actions relative to putting present conditions into the most sanitary form. In this number we will consider Building Regulations for the purpose chiefly of arranging all prospective work in the most perfect and sanitary manner. We cannot do better than to quote again from the Government Report before us:

"The importance of a comprehensive and uniform plan in laying out the suburbs of cities is by no means fully appreciated. It is forgotten that such districts, more or less remote in our own time, may be the very heart of the city in a succeeding generation. The folly of our fore-fathers is often a subject of facetious, and sometimes irritating, comment. But the folly is not all past, and in this regard we of the present are frequently guilty. While we are occupied in undoing the folly of our fore-fathers, and spending vast sums—in the manner of Boston which during the last twenty-five years, spent $40,000,000—to widen or straighten crooked throughfares, we allow the perpetuation of the same evils in rapidly growing suburbs. How often do individuals or companies, in their so-called improvement of certain sections, lay out the acres at their command in streets running at right angles to those already existing, without reference to any system of thoroughfares. When the owner of the adjoining property makes up his mind to improve his possessions he seeks to get out of them the largest amount of salable land and runs his streets in comformity, with his neighbors', or not, as best suits his convenience or interest. Such arrangements as these, in the second or third generation, are bound to create insanitary property. Subsequently these sections become the' slums, the cost of eradicating which, and of making provisions for proper light, air, and ventilation, is simply enormous.

"German cities have taught us a valuable lesson in the matter of laying out suburbs. Improvement plans are furnished by the municipality, and architects are invited to compete in presenting designs. After it has been decided that a certain district shall be opened up, a jury is appointed to assess damages, terms are made with private owners, and the architect furnishing the most acceptable scheme is awarded the prize. In Berlin an effective check is placed upon too rapid urban development by prohibiting building upon unsewered land. Overcrowding on space is likewise a question of deep importance."

As to overcrowding on space there ought without doubt to be regulations preventing building on an entire lot thus causing back to back houses. In the deep lots in San Francisco we find a rear house built often on the back line of the lot with a yard between the front and rear houses; the owner of abutting lot fronting on the next street, rather than give the first builder the advantage of light from his yard does the same thing and back to back houses are at once formed; this should be disallowed. Air stagnates and an unsanitary state of affairs is at once obtained.

"The results appear in the following table:

ANNUAL DEATH RATE PER 1,000 DURING FIVE YEARS IN BACK-TO-BACK HOUSES IN MANCHESTER ENGLAND.

[From Provisional Report on Back-to-back Houses, by the Medical Office of Health, Manchester, April, 1891.]

Groups	Total population	Precentage of back-to-back houses	All causes
I	8,713	8	27.5
II	11,749	23	29.2
III	11,405	66	30.5
IV	892	100	38.4

"The general sanitary condition of these groups was practically the same; but notwithstanding this the table disclosed the fact that the general mortality in back-to-back houses exceeded that in dwellings of the same class with through ventilation by 40 per cent, the mortality from infectious diseases by 93 per cent, and that from consumption and other lung diseases by 86 and 39 per cent, respectively. The mortality from diarrhea was more than twice as heavy. In every case the death rate from all these classes of diseases increases as the proportion of back-to-back houses increases.

"Overcrowding on space is a very important matter. Liverpool is the most densely populated city in Great Britain. Its death rate is, with one exception, also the highest. Still, density of population as the cause of a high death rate must always be considered in reference to the character of the buildings. Sir Sydney Waterlow testified that the average number of persons housed on an acre of space by his company was 1,000. He was of the opinion that this was not too many where good ventilation was provided and where streets are wide. His theory seems to be borne out in the investigation made by Dr. Arthur Newsholme into the vital statistics of the Peabody and other block dwellings in London which show a most favorable death rate. The exact results of this inquiry are given elsewhere. It is undeniable that block dwellings, when very high, cause drafts of cold air in the streets below and shut off other property from the rays of the sun. *Human beings are said to be as much dependent for their health upon sunlight as are plants.*"

The last sentence leads us to the necessity of abolishing cellars and other underground constructions; or if that may be too radical a change at least have laws preventing the use of them for any purpose whereby people are compeled to be in them for more than a few minutes; there is no excuse for having these places, for there is plenty of unoccupied ground waiting for the occupation thereof by above ground structures without boring in the earth like gophers.

The same argument holds good in regard to tall structures above ground.

Looking at London we find the following provisions for rear open space:

"Frontage of building not exceeding 15 feet, open space at the rear 150 square feet; not exceeding 20 feet, the minimum space at the rear 200 square feet; not exceeding 30 feet, the minimum space at the rear 300 square feet; exceeding 30 feet, the minimum space at the rear 450 square feet. There should be no buildings erected on this space higher than the level of the ceiling of the ground floor story, and the space should extend throughout the entire width of the building. This provision had reference to buildings built after 1882, not to those constructed previously.

The act of 1882 is the one which is still in force in London, notwithstanding the recommendation of the royal commission on the housing of the working classes, in 1885, that in the rear of every new dwelling house, whether in old or new streets, there should be provided a proportionate

extent of space belonging exclusively to it, to be free from erection of buildings thereon from the ground level upward, that the space extend laterally throughout the entire width of the dwelling house, that for the distance across the space from the building to the boundary of adjoining premises a minimum should be prescribed, and that this minimum should be increased with the height of the dwelling house or building.

The London county council, in the case of the Boundary street area in Bethnal Green, among the requirements for buildings to be erected on the land, laid down the following conditions:

1. That blocks of dwellings should not exceed 40 feet in height.

2. That parallel blocks should be separated from each other by an open space, clear from the ground, of at least 40 feet in width.

3. The new streets must be 40 feet in width, and the blocks run almost due north and south, so as to admit the maximum amount of light to all the tenements equally.

4. Courtyards between the blocks are to be left entirely open at each end, and unobstructed by cross buildings.

"Land sold under these conditions can not, of course, bring a very good price; but Dr. Parkes makes the point that it is better that the scheme should cost a great deal to the ratepayers of this generation in order that future generations may not have to pay a further price for the sanitary neglect of the present.

"It may be interesting, therfore, to know, from the accompanying diagram (plan No. 2), the proposed method of regulating open space in the rear of dwelling houses in London.

"The general principle of the plan is that an open space, free from any building, 10 feet in depth throughout the entire width of the building, is left at the rear. The remainder of the ground may be covered with any buildings, provided no part of them, except the chimneys, pass above a line drawn at an angle of 45 degrees from the rear toward the house. This is a most excellent requirement, for it treats houses, whether large or small, in proportion to their size. The plan is also adopted in Liverpool."

Private owners putting up the same character of dwellings are subject to proper sanitary and constructive regulations, to some of which objections are made by owners, we presume principally on account of the buildings not paying sufficient interest when these regulations are adhered to.

"The regulations to which private building companies object are:

1. Staircases must be four feet wide.
2. Dwellings must not be higher than four stories.
3. Ceilings must be 9 feet high.
4. Comparatively severe requirements regarding light and air spaces.

"The council consider, however, that the real reasons for their refusing to build on land owned by the county council are the careful supervision maintained by its clerk of the works in reference to construction and materials used, and also the requirement that men employed must be paid union rates of wages. The latter stipulation, it is said, will enhance the cost so that, considering also the better borrowing powers of the public body, private companies would be at a disadvantage. Both the County Council and the building companies look forward to a compromise.

"Regulations adopted by the London County Council for building houses for working people upon its own land conain the following prescriptions:

"Staircases—A central staircase in blocks of dwellings is objectionable, and as regards convenience of plan and thorough ventilation of each dwelling, the best amongst the modes commonly in use is that which provides a staircase close to the outer wall, and having large openings communicating with the open air. Such a staircase can be conveniently arranged to give access to four dwellings, and the ventilation of such dwellings can be effected by means of open doors and fanlights, so that a thorough current of air can be obtained when it is desired. If it is felt in the winter time that this arrangement leaves the persons using the staircases too much exposed to the weather, windows partially enclosing the openings can be provided.

"The chief alternative to this kind of staircase seems to be one which is in the center of the block, and gives access to dwellings on each side of it. In this case the ingress of fresh air to the staircases can only be through the entrance doorway and along a short passage, and through the skylight at the top of the staircase. Upon this the dwellings opening from the staircase have to depend for their through ventilation.

"Both these plans are in considerable use.

"Staircases in buildings more than three stories high should be at least 4 feet in width. The walls of the staircases to a height of about 4 feet 6 inches should be finished with glazed or hard-pressed bricks; the upper portions with hard bricks neatly pointed.

"Basement floors.—There is no doubt that, as compared with the other floors of a building, the basement floor is undesirable as a residence, but in building artisans' dwellings it is generally expedient to construct a story below the ground floor, though it is not necessary that they be used as dwellings: but inasmuch as there is no definite evidence at the present time that basement rooms, frontiug upon a principal street, should not be used for dwelling purposes, their use need not be forbidden, provided that adequate precautions against fire are taken, and that the bottom of the window sills is not lower than than the level of the adjoining pavement, and not more than 3 feet above the floor, and that in other respects they agree with the provisions of section 103 of the metropolis local management act, as applied to new buildings.

"They are usually let at a rate materially lower than the rooms above them, but if they are let at the same rate as the upper floors in a high block of buildings, they are pre ferred by many people who are not able to mount a considerable number of stairs. Beyond the question of health, it is not necessary to object to such rooms on account of their proximity to the street, those who occupy them being able to make such arrangements for privacy as they find necessary.

"Where no areas are practicable, the walls should be covered with asphalt or other damp-resisting material, from the damp-course to the footings.

"Bathrooms, etc.—Uuless they are in close vicinity to public baths and wash houses (a condition which can very rarely happen), bath and wash house accommodation should be provided to every block of dwellings, and this can best be provided in a separate building or on the basement floor, or in a distinct section of the block that can be constantly

under inspection, and to which inexpensive arrangements for water supply, etc., can be applied.

"In connection with this matter, the water-closet accommodation has been considered, on the assumption that the dwellings to be built or promoted by the council will generally be for the accommodation of the lowest class of the population which inhabits separate tenements, a class just above that which uses the common lodging houses, and for which neither private speculators nor the societies for building artisans' dwellings make any provision. It seems inexpedient that either water-closets or separate water supply or sinks should be constructed so as to be immediately accessible from any dwelling rooms. A sufficient number of closets should be supplied to each floor of dwellings to which a separate staircase is provided, together with a provision of sinks and water supply for common use. Such closets should have both doors and windows opening directly to the open air; and where possible, there should be one closet to each family.

"Dust shoots should be provided from each common scullery, or from the landing adjacent, to discharge into galvanized iron movable dust bins, which can be carried out and emptied into the dust cart.

"Size of rooms—The number of rooms to be provided in each tenement, and their sizes, have been considered as one question, and the following may be regarded as minima:

"1. In a one-roomed tenement the minimum superficial area should be 144 feet. This would conveniently be provided in a room measuring about 12 feet by 12 feet.

"2. A two-roomed tenement should have a similar room, with an additional room containing 96 superficial feet, or measuring 12 feet by 8 feet.

"3. A three-roomed tenement should have a large room containing 144 feet in superficial area, and two rooms each containing 96 feet.

"These sizes, however, should not be rigidly fixed, but rooms of various sizes should be provided. Four-roomed tenements need not be provided, but if they are, the fourth room should be of about 100 feet superficial area.

"It would be convenient as regards planning, and also as regards the population to be accommodated, that some little variety should exist in the sizes of the rooms in each tenement as well as in their number, in order to provide for the different conditions of the families.

"The standard height for every room should be 9 feet. The walls of the rooms should be finished in some hard material, for which purpose Portland cement upon brickwork, or brick with pressed face on both sides, should be used up to a height of about 3 feet 6 inches. The upper parts of the walls can be finished by a thin coating of hard plaster upon brickwork, but upon this point some further inquiry is desirable.

"In designing the buildings, some care shoul be taken to give a pleasant appearance to them.

"As regards the interval which should exist between any block of dwellings and the nearest building obstructing the light from its windows, it is suggested that, if practicable, this distance should be equal to one and one-half times the height of the obstructing building. But it does not appear that this space can, in view of the cost of land, be generally provided. Under no circumstances should a nearer distance than the height of the buildings be allowed."

The regulations regarding basement floors appear to be too lenient. There is no good reason for any living room being on or below the level of the ground where the surface is flat, although on the side of a hill, many examples of which we find in San Francisco, living rooms could be allowed in the part of the basement above the natural grade of the adjoining earth.

The higher standard of living on this coast, which we hope may ever be maintained and raised, makes many of these regulations, those in regard to houses for the very poor, hardly necessary at present here. However, if something is not speedily done we will find that such dwellings will spring up and have to be used, and in that case let them be as good as we can make them.

In our next number we will take a glance through all the principal building regulations of the world—compare the same with the San Francisco Building or Fire Ordinance as a type of the Pacific Coast and see where improvement can be made therein.

SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

THE usual monthly meeting of the San Francisco Chapter of the American Institute of Architects was held at their rooms 408 California street on the 11th inst.

The annual election for officers was held and the present incumbents were all re-elected.

The most important matter coming before the meeting was the consideration of the draft of a proposed bill concerning the method of obtaining plans for public works prepared by Mr. Cuthbertson. After some discussion the matter was referred to a committee composed of Messrs. Sanders, Pissis and Hendrickson. An invitation was extended to Mr. W. G. Wright to read a paper before the Chapter on the subject of Quantity Surveying. The meeting then adjourned.

After sundry amendments the committee agreed upon the following as the text of the proposed bill above mentioned:

ACT FOR OBTAINING PLANS FOR PUBLIC WORK.

Section 1. Any State or County officer or officers, or any Board of Supervisors or Municipal Corporation or any Board of Trustees or Commissioners or any person or persons created or appointed by authority of law or any statute, called hereafter in this statute "the authority", are about to erect, or cause to be erected or constructed any State, County, Municipal or other architectural or engineering structure, the total cost of which is estimated to exceed the sum of $20,000 it shall be the duty of said authority to advertise for preliminary plans and specifications for said architectural or engineering structure—and to state in said advertisement the amount authorized by law or otherwise to be expended for the erection of said structure and the prizes which shall be offered therefor. There shall at least be three properly graded prizes offered therefor, the aggregate amount of which shall be one per cent for all plans involving expenditure up to $200,000 and one per cent for the first $200,000 and one-half per cent for all over that amount for structures involving an expenditure over $200,000.

The authority shall employ an expert or experts for consultation and to examine said plans and report to it thereon—said experts shall be competent architects for all architectural structures and competent engineers for all engineering structures.

Sec. 2. Whenever the preliminary plans and specifica-

tions of any architect or engineer shall be adopted, said sketch plan and specification shall become the property of the authority calling for the same upon the payment to the author thereof of the sum of one per cent of the total amount appropriated and to be appropriated to complete the aforesaid structure.

All the other plans and specifications including all premiated ones except the first shall be returned to their presenters immediately after the award. Upon the adoption of said preliminary plans and specifications said authority shall appoint as architect or engineer for an architectural or engineering structure respectively, the author of the adopted design. It shall be the duty of said architect or engineer to prepare full working drawings and specifications and give supervision for a structure to cost no more than the amount mentioned in the advertisement conforming as near as may be to the said preliminary plans and specifications for which he shall be paid the additional sum of four per cent of the total cost of said structure or of so much of said structure as may be carried out at any one time. A superintendent of works shall in all cases be appointed to superintend the construction of said structure whose salary shall be paid by the authority.

Sec. 3. Any action of the authority in violation of any or all of the provisions of this Act shall become null and void.

Sec. 4. The Act of 1872 and all other acts relating to the obtaining of plans for public works by bonds or otherwise are and are hereby repealed—and this act shall go into force as soon as passed.

For the information of our readers and for comparison we publish the present statute on the subject:

Section 1. Where by any statute of this State power is given to any State or County officer or officers, or any Board of Supervisors or Corporation, or any Board of Trustees or Commissioners or other person or persons created or appointed by authority of any such statute to erect, or cause to be erected or constructed any State or County, or other building or structure, it shall be the duty of said officers, Board of Supervisors, Corporation, Board of Trustees, or Commissioners, or other persons, to advertise for plans and specifications in detail for said building or other structure, and to state in said advertisement the amount authorized by law or otherwise to be expended for the erection of said building and also the premium to be awarded to the architect whose plan and specifications for the same may be adopted.

Sec. 2. Whenever the plans and specifications of any architect shall be adopted, such officer or officers, Board of Supervisors, etc., so adopting the same, shall before any premiums shall be awarded for such plans and specifications, require such architect to execute and file with such officers, etc., a good and sufficient bond with two sufficient sureties thereto, in the penal sum of five thousand dollars to be approved by said officers, etc., as the case may be, and conditioned that within sixty days from the date of said bond he will, on presentment to him, enter into a contract containing such provisions and conditions as may be required by such officers, etc., and also conditioned that he will give such further bond to secure the faithful performance of such contract, with such sureties as may be required of him in the event that such officers, etc., so acting under authority of law should, within said sixty days, require said architect, to enter into such contract to erect such building at the price named in said advertisement to be expended for such purpose. In case said architect whose plans and specifications are adopted should enter into such contract, it shall be the duty of such officers, etc., to employ a competent architect or superintendent, to superintend the erection of such building or structure, and to see that such plans and specifications are faithfully carried out.

Sec. 3. All contracts entered into by such officers, etc., in violation of the provisions of this act shall be null and void.

TRANS-MISSISSIPPI AND INTERNATIONAL EXPOSITION, OMAHA, NEBRASKA.

Sealed proposals will be received by the undersigned, until Twelve (12) o'clock noon of Monday, the 11th day of January, 1897, for the services of a thoroughly competent Architect, as Supervising or General Architect for the Trans-Mississippi and International Exposition, which opens June 1st to November 1st, 1898. Total cost of Exposition Buildings estimated $1,000,000.

Proposals must state salary desired, qualifications and experience of applicant, and such references or letters as may be deemed of value by applicant. Engagement to begin immediately upon selection being made, and terminate at pleasure and discretion of Exposition management.

By order of the department, Buildings and Grounds,
John A. Wakefield,
Secretary.

LEGAL DECISIONS.

From a large number of Legal Decisions of the higher Court, of the different States of the Union, we select and publish in this column, such as appear applicable to this section of the country.

Agency of Husband for Wife in Building.—In an action for the price of lumber alleged to have been sold to a married woman, and used in improving her estate, the defense was that the lumber was purchased by the husband on his own credit. The sellers testified that the husband stated that the lot on which he wished to use the lumber was owned by himand his wife; that the woman was present when the lumber was delivered, and gave directions where it should be placed, an expressed herself as being glad that it had come. The court held that this was sufficient to establish the fact that the sale was made to the woman.

Holden v. Kutscher, 40 N. Y. Supp. Reporter, 737.

Covenant in Deed Restricting Building Line.—Where a tract of land is laid out in lots and blocks by the owner for sale in accordance with a general scheme, by which restrictions as to building are imposed on each purchaser, for the benefit of all of the land, such restrictions being embodied in all the conveyances, the right of one lot owner to enforce the covenant against another is not a legal, but a purely equitable right, and will only be enforced where it is equitable in that particular case. A court of equity will not require the removal of a building on the ground that it is in volation of a building convenent, where the grantor and owners of the other lots permitted its erection without objection; and subsequent purchasers of adjoining property are bound by the laches of their grantors.

Trout v. Lucas, Ct. Chancery N. J., 35 Atlantic Rep. 153.

Statement Against Architect.—A complaint, under the laws of Massachusetts, alleging that an architect, employed to superintend the erection of a house, had falsely and negligently, and acting in collusion with the builder, represented that a certain amount of labor and materials had gone into the house, whereby the owner was induced to pay the builder an amount of money called for by the contract, is a sufficient allegation of fraud and negligence to show a cause of action against the architect. In giving oral aduice or statements to his employer, the architect is, or may be found to be, rendering a purely partisan service, and if he is then he is bound to show reasonable care and judgment. As a consequence of his contract of employment, the law throws the risk of his statements upon him at an earlier point than it would do otherwise. Aside froN his contract, he would not be liable for statements, unless fraudulent, or for advise, unless dishonest. Under the contract, negligently erronious statemems and imprudent advice become wrongs.

Corey v. Eastman, Sup, Jud. Ct. Mass., 41 N. E. Rep. 218.

BUSINESS MOSAICS.

Drummer—Who was that man whom I overheard denouncing the new Town Hall? Village Merchant—That was the architect who didn't plan it.—*Puck.*

Jones—Who was it that said, "The unexpected always happens?" Jenkins—I don't know. Wasn't it somebody connected with the Weather Bureau?—*Puck.*

Mr. Fussy—I don't see why you wear those ridiculous big sleeves when you have nothing to fill them. Mrs. Fussy—Do you fill your silk hat?—*Boston Standard.*

First Cannibal—She's a peach. Second Cannibal—How fortunate! I'm a vegetarian by preference, you know.—*Detroit Tribune.*

Yeast—Is your wife liberal minded? Crimsonbeak—I guess so; she seems to give me a good deal of it.—*Younkers Statesman.*

CITY BUILDING NEWS.

Baker near Page. Carpentry work, etc.; owner, Jas. Hawkins; architect, A. C. Lutgens; contractor, Frank Steinman; cost $3650.

Beulah near Cole. To build; owner, Robert Pieper; contractor, Edw. Cox; cost $6900.

Bush near Broderick. Alterations and additions; owner, D. J. Hesselmeyer; architect, J. E. Kraft; contractors, Brennan & Son; signed, Nov. 16; filed, Nov. 28; cost $2788.

California and Front. Elevator for four-story brick; owners, Rosenbaum; Bros.; contractor, W. L. Holman.

Cole near Beulah. Five two-story frame buildings; owner, Charles Hinkle days work; cost $25,000.

Eddy near Devisadero. To build; owner, Miss Mary E. Roberts; architect, H. A. Schulze; contractor, T. R. Bassett; signed, Nov. 25; filed, Dec. 2; cost $1740.

Eleventh near South San Francisco. Two cottages; owner, J. W. Kelly; architects, Townsend & Wyneken; contractor, M. J. Scott; signed, Nov. 13; filed, Nov. 14; cost $2265.

Ellis and Powell. Store fixtures; owners, N. C. and H. C. Wolf; architects, De Prosse & Meussdoffer; contractors, L. & E. Emanuel; signed, Nov. 20; filed, Nov. 21; cost $795.

Ellis and Powell. Plastering, etc.; owner, Royal Eagle Distrillerie Co.; architect, E. Kollofrath, contractor, W. C. Watson; signed, Nov. 19; filed, Nov. 30; cost $2500. Cabinet makers work; contractor, G. Brandlein; cost $1750. Stucco work; contractor, A. Le Jenore; cost $1500. Marble; contractor, J. McCarthy; cost $2100. Interior finish; contractor, S. Levi; $2130.

Francisco near Powell. To build; owner, Antonio Chichizola; contractor, Henry J. Weiss; cost $2050.

Fulton near Steiner. To build, owner, Fannie Mahon; architect, W. H. Lillie; contractors, Moore & Cameron; signed, Nov. 16; filed, Nov. 17; cost $2997.

Fulton near Baker. To build; owner, Mary Horgan; contractor, J. J. Mauseau; signed, Nov. 16; filed, Nov. 17; cost $3740.

Fulton near Baker. To build; owner, Robert McMillan; architect, E. J. Vogel; contractor, D. Currie; signed, Dec. 14; filed, Dec. 18; cost $9100.

Geary near Larkin. Alterations and additions; owner, Esther Attell; architects, Townsend & Wyneken; contractor, John Hayes; signed, Nov. 21; filed, Nov. 21; cost $2260.

Grant Ave. and Sutter. Fixtures for two-story brick; owner, D. Samuels; architect, E. R. Swain; contractors, W. T. Veitch & Bro; cost $3709.

Green and Stockton. To build; owner, Nathan Joseph; architects, Kenitzer & Barth; contractor, Joseph Wyllie; signed, Nov. 28; filed, Nov. 28; cost $1690.

Jackson near Sansome. Carpenter, brick work, etc., on three-story brick, owners, Domingo and Lewis Ghirardelli administrators estate of Dominigo Ghirardelli; architects, Wm. Mooser & Son; contractors, Campbell & Pettus; signed, Nov. 18; filed, Nov, 19; cost $6794.

Larkin near Chestnut. Additions; owner, C. A. Kenniff; contractor, W. W. Rednall; signed, Nov. 17; filed, Nov. 18; cost $885.

Lombard and Baker. To build; owner, John K. Meyer; contractor, Chas. Alsup; cost $2700.

Market between 3d and 4th. Store front interior finish; owner, Claus Spreckels; architects, Reid Bros.; contractors, Thomas Day & Sons; signed, Nov. 10; filed, Nov. 28; cost $4087. Plastering, etc.; contractor, Thomas Mannix; cost $1496. Plumbing, etc.; contractor, S. Ickelheimer; cost $1942. Wire work, etc; contractor, Justinian Caire; cost $1566. Refrigerating plant; contractor, Cyclops Iron Works; cost $3526.

Mission near Fair Ave. To build; owner, Jos. E. Theriot; architects, Mahoney & Ryland; contractor, J. F. Millerick; signed, Nov. 21; filed, Nov. 25; cost $1250.

Missiod near Fourth. Alterations and additions. Owner, N. A. Hewston; architects, Shea & Shea; contractor, Daniel Powers; cost, $3633.

Mission near 8th. Plastering on brick building; owner, Ed. McLaughlin; architect, Chas. Geddes; contractor, Chas. Dunlop; signed, Nov. 18; filed, Dec. 2; cost $1098.

Ninth Ave.. Cottage; owner, Mrs. Eugenie St. Paul; architect, Wm. Curlett; contractor, Wm. Linden; signed, Nov. 4; filed, Nov. 25; cost $1600.

Sacramento near Van Ness. Mason work; owner, J. Z. Posadas; architects, Pissis and Moore; contractors, Peacock & Butcher; signed, Nov. 25; filed, Nov. 27; cost $3650. Carpentry; contractor, Robert Smilie; cost $12,787. Sandstone; contractor, J. D. McGilvray; cost $7500. Plumbing; contractor, S. Ickelheimer & Bros.; cost $2619.

Sacramento near Devisadero. Three-story frame; owners, Geo. H. and Belle W. Holstein; architect, W. H. Lillie; contractor, M. J. Savage; signed, Nov. 30; filed, Dec. 1; cost $5160.

Sanchez near Day. Cottage; owner, W. F. Laumeister; architect, Casper Zwierlein; contractors, Sarcander & Thompson; cost $1400.

Second near Folsom. Two-story frame; owners, W. F. Nicols & W. B. Hooper trustees; architect, Albert Sutton; contractor, Sidney Walker; filed, Dec. 1; cost $5946.

Shrader near Beulah. Five two-story frame dwellings; owner, A. Wilford; day's work; cost $25,000.

Shrader near Beulah. To build; owner, Wm. D. Ladd; architect, E. Depierre; contractor, John Hood; signed, Dec. 14; filed, Dec. 21; cost $2470.

Sutter and Hyde. Six-story brick; owner, Dr. Julius Rosenteirn; architects, Salfield & Kohlberg; contractor, Geo. H. Tay & Co.; cost $2765.

Sutter near Fillmore. Additional story; owner, Merton S. Price; architect, Oliver Everett; contractor, Christ Krutte; signed, Dec. 2; filed, Dec. 2; cost $3412.

Twentieth Ave. near Pt. Lobos. Frame dwelling and stable; owner, Mrs. Marie Forst; architect, J. E. Kraft; cost $3340.

Twenty-fourth near Alabama. To build; owners, Wm. Splain & Sons; architect, M. J. Welsh; contractor, J. T. Coleman; signed, Nov. 21; filed, Nov. 23; cost $2666.

Van Ness and Clay. Ceilings of porticos, etc.; owner, Claus Spreckels; architects, Reid Bros.; contractors, L. & E. Emanuel; signed, Nov. 10; filed, Nov. 28; cost $1898.

Webster near Broadway. Interior finish; owner, W. B. Brown; contractor, W. Bell; cost $12,000.

York near 23d. Two-story frame; owner, F. E. Almquest; architect, J. Peterson; contractors, Miller & Fredrikson; cost $2400.

TITLE THE CALIFORNIA ARCHITECT AND BUILDING NEWS
FORMERLY THE CALIFORNIA ARCHITECT AND BUILDING REVIEW
FORMERLY THE QUARTERLY ARCHITECTURAL REVIEW

AUTHOR

VOLUME XVIII

DATE 1897

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The ❀ California ❀ Architect ❀ and ❀ Building ❀ News.

OFFICE, 408 CALIFORNIA STREET, SAN FRANCISCO, CAL., U. S. A.

VOL. XVIII. INDEX. 1897

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Numbers refer to number of Journal.

The California Architect and Building News.

OFFICE, 408 CALIFORNIA STREET, SAN FRANCISCO, CAL., U. S. A

VOLUME XVIII. JANUARY 20th, 1897. NUMBER 12

A MONTHLY JOURNAL DEVOTED TO THE ARCHITECTURAL INTERESTS OF THE PACIFIC COAST.

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NOW IN THE EIGHTEENTH YEAR.

OLIVER EVERETT, Secretary.

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AS 1896 has past nothing more need be said of it here except that amidst the numerous failures and tragedies the CALIFORNIA ARCHITECT AND BUILDING NEWS still stands.

During the year it has advocated various improvements in our social arrangements, which advocation we are glad to see has generally been received with favor; in some cases leading to practical results, in others simply laying the foundation for a public opinion.

The following are some of the subjects which have been ventilated in this paper in its last volume and their present status:

Our endeavors for obtaining a decent law providing for a method of obtaining architectural service for public work will, we hope, be crowned with success in the session of the present Legislature, having received the valuable aid of the San Francisco Chapter of the American Institute of Architects

Our efforts made in conjunction with Regent Reinstein's—again with the valuable assistance of the San Francisco Chapter of the American Institute of Architects—to obtain a plan for a comprehensive arrangement of buildings for the California State University have eventuatd in the offer of Mrs. Hearst to set aside sufficient money for the purpose of getting the result of the labors of the foremost talent of the country in evolving a suitable plan therefor.

We are also glad to note the stand made by our Supervisour against the erection of inordinately tall buildings, inveighed against in our Journal.

Our strenuous efforts to obtain a Post-Office for San Francisco has not resulted in any thing further than a statement that the working drawings are about finished—that is something however.

Another of our proteges, the Torren's system of transferring title to real estate will be brought up in this Legislature—result uncertain.

Our opposition to the proposed new Charter for San Francisco has fortunately been justified by the vote of the people and we feel encouraged to hope that another attempt will be carried out more on the lines outlined in our April number.

The last Grand Jury has urged the necessity of Fire Escapes on our School Houses and other public buildings, and we hope practical effect will be given to their recommendations before long. This is another of our fads.

We are also glad that ordinances have been passed in San Francisco and other chief cities of the State for the purpose of putting a stop to the criminal act of placing any articles on the sidewalk as may cause damage to life or limb, and to health, a result of the movemeni inauguated *by us in our last volume*.

So altogether we may feel encouraged and will keep on in 1897 pointing out what we think wrong and what we think right.

Our series of articles on the Housing of people of small incomes will be continued during this year—forming valuable contributions to Urban Science and worthy the serious attention of all public bodies, and we intend to keep up the present standard of the journal, if not to improve thereon, which latter we shall certainly do if encouragement enough is given.

CONSIDERABLE agitation is now going on in regard to the proper position of a Pest House or Hospital for contagious diseases, the presence of which in our midst is unfortunately a necessity from our present imperfect knowledge and carrying out of the Laws of Hygiene.

Without doubt a position in the centre of a town and particularly when placed in the way of the prevailing winds, blowing over it into the most inhabited part of the City and causing the sewerage therefrom to pass through the same before it can be got rid of is bad. When said city is placed on a peninsula like San Francisco the problem is easy to solve; place the Pest House near the edge of the water on the lee side and in a place where residences are likely to be few. A place like the top of Telegraph Hill seems to answer all purposes, its height allows any germs in the air to be blown into the bay—it can be drained directly into the intercepting sewer—and no habitations are close or likely to be close. To get there an elevator can be built on the steep side, or a cable car run as there used to be. We hope that the citizens will insist upon such a locality as the one mentioned being chosen.

IN re-introducing into the New York legislature what is called the Pavey Bill for regulating the heights of buildings in New York city, a curious oversight has been made.

The Bill provides that no building shall be erected of greater height above the curb level than fifteen times the square root of the width of the street, but neglects to say what denomination that width shall be taken in; whether feet, inches, yards, or miles, and it makes quite a difference in the height of a building, according to what denomination is taken, *e.g.*, if feet is meant, then for a street one hundred feet wide we have the square root of one hundred which is ten, multiplied by fifteen which makes the height allowed one hundred and fifty feet. If we take the dimension in yards, we have the square root of thirty-three which is 5.745 which multiplied fifteen times equals eighty-six yards or 258 feet.

So if we take the width in decimals of a mile we obtain by the same calculation a pigmy building.

Although the ordinary public would consider that feet are meant, there is no telling what the lawyers and judges would hold if the matter was brought into Court by someone wishing to erect a building higher than implied in the Act, for the ways of such are like the ways of Providence, past finding out.

TO PROTECT WORKMEN.

NEW YORK'S NEW HUMANE BUILDING BUILDING LAW.

SOME curiosity has been expressed as to the exact wording of the building law enacted by the New York Legislature last June relating to the protection of lives and limbs of workmen on buildings in course of erection. The law follows:

SECTION 1. It shall be the duty of all contractors and owners when constructing buildings in any of the cities in the State of New York, where the plans and specifications require the floors to be arched, between the beams thereof, or where the said floors or filling in between floors shall be of fireproof or brick work, to complete the said flooring or filling in as the building progresses to not less than within three tiers of beams below that on which the iron work is being erected.

SEC. 2. It shall be the duty of all contractors for the carpenter work of buildings, in the course of construction, in any of the cities of the State of New York, where the plans and specifications do not require the filling in between the beams of floors to be be of brick or fireproof work, to lay the under flooring thereof as the building progresses on each story to not less than within two stories below the one to which the said building has been erected. Where double floors are not used, the contractor shall be required to keep planked over the floor two stories below the one on which the work is being carried on.

SEC. 3. It shall be the duty of all contractors for iron or steel work of buildings in the course of construction or the owners thereof, in cases where the floor beams are of iron or steel, to thoroughly plank over the entire tier of iron or steel beams on which the structural iron or steel work is being erected, except such spaces as may be reasonably required for proper construction of said iron or steel work, and for the raising or lowering of materials used or to be used in the construction of the said building, or such places as may be designated by the plans and specifications for stairways and elevator shafts.

SEC. 4. The chief officer, in any city, charged with the enforcement of the building laws of such city, is hereby charged with enforcing the provisions of this act.

SEC. 5. Any violation of the provisions of this act shall be a misdemeanor and on conviction shall be punishable by a fine, for each violation thereof, of not less than $25 nor more than $200.

SEC. 6. This act shall take effect immediately.

—*National Real Estate Guide.*

FROM THE THIRD BIENNIAL REPORT OF STATE MINERALOGIST—STRUCTURAL MATERIAL.

BASALT

NAPA COUNTY

Columnar Basalt occurs in Clark's Canon, 12 miles W. of Napa, on the land of Charles Clark, of Napa.

Columnar Porphyry is found on the eastern slop of Mount Helena, 6 miles W. of Kellogg. Columns, 3″ to 5″ diameter, are found, 4′ to 6′ long. The rock is hard and brittle and of a gray color, and stained.

CEMENT

SAN BERNARDINO COUNTY

California Portland Cement Works—See our XIIth Report, p. 380. These are ¼ mile W. of Colton, at 1,000′ elevation. The limestone used in the manufacture of the cement is quarried from a hill situated immediately back of the works. The quarry is connected with the manufacturing plant by an inclined tramway about 1,000′ long, and rising 600′ to near the summit of the hill. The plant, consisting of four Griffin mills, two revolving oil-burning furnaces of the Duree type, and all the other necessary pulverizing and conveying machinery, etc., is located at the side of the Southern Pacific R. R. The limestone, said to be almost pure, is mixed with a certain proportion of clay and fluor-spar from the Castle Dome mines in Arizona, pulverized and roasted at an intense heat. A semi-clay-like mass, or "clinker," is the result. This is cooled and re-ground, and sacked for shipment. A very complete laboratory and testing-room is connected with the establishment. Seventy-five men are employed. The capacity of the works is said to be 200 bbls. per day. California Portland Cement Co., of Los Angeles, owner; F. N. Spear, of Colton, superintendent.

SOLANO COUNTY

Benicia Works—See our XIIth Report, p. 380. Idle. J. G. Johnson and James Clyne, of Benicia, owners.

CLAY, BRICKS, POTTERY, ETC.

ALAMEDA COUNTY

California Pottery and Terra Cotta Co.—See our XIIth Report, p. 381. Its works are on Twelfth street, in East Oakland. There are two kilns, 18′ and 16′ in diameter, fired with wood. Sewer and chimney pipe, flower-pots, vases, tiles, fire-bricks, stove linings, etc., are manufactured. The clay used is obtained from Carbondale, Amador County. Eleven men are employed in the works. S. W. Winsor, of Oakland, manager.

N. Clark & Sons' Pottery.—See our XIIth Roport, p. 381. It is in the City of Alameda, and consists of eleven kilns—two 25′ in diameter, eight 20′, and one still smaller. A Whitacre machine for making pressed bricks is being erected. The company manufacture vast quantities of vitrified sewer and water pipe, chimney pipe and tops, fireproofing, etc. The clays are principally obtained from Carbondale, Amador County. N. Clark, President; George A. Clark, of No. 13 Spear street San Francisco, secretary.

Oakland Art Pottery.—It is on Twelfth street, between Twenty-second and Twenty-third avenues, Oakland. There are three kilns—one 20′ and two 18′ in diameter. All sorts of ornamental vases, flour-pots, chimney pipes and tops, standard sewer-pipe, ornamental tiling, water-coolers, and general terra cotta wares are manufactured. The clays used are principally obtained near Carbondale, Amador County. Twenty-nine men are employed. James Miller, of No. 1125 E. Twelfth street, Oakland, proprietor.

Remillard Brick Co.'s Works.—See our XIIth Report, p. 381. They are on the S. P. R. R., 1½ miles N. E. of Pleasanton. There are two sixteen-compartment Hoffman kilns of 20,000 daily capacity each. But one kiln is now in operation. Only common bricks are made. They are made from a superficial deposit of sandy loam, 25′ thich, which is near the kilns. Sixty men are employed during summer. P. H. Lamoureux, of Oakland, secretary; E. R. Sinard, of Pleasanton, superintendent.

AMADOR COUNTY

In the vicinity of Carbondale are large and numerous deposits of clay of superior quality, and also of sand. In these deposits large excavations have been made at many points and the material shipped to potteries and pressed-brick works throughout the State, large quantities going to Alameda, San Jose, Scramento and even as far as Los Angeles. The total annual shipment of clay alone from Carbondale is about 16,000 tons. Sand, up to the present time, has been shipped in limited quantities to iron foundries, where it is used in molding. This branch of the industry will doubtless grow into greater proportions as the peculiar fitness of this sand for the purpose becomes better known.

Carbondale Pottery—These works are at May P. O., 1 mile from Carbondale Station. There is but one furnace, and this is fired intermittently. Drain-pipe, terra-cotta chimney tops and pipes, fire-bricks, and a line of stoneware, jugs, jars, etc., are the principal articles manufactured here. Fred Hammer, of May P. O., owner.

N. Clark & Sons' Clay-pits.—These are scattered within a radius of 3 miles of Carbondale Station. They are worked constantly, except during the rainy season. To provide the necessary supply during the winter months, several thousand tons are mined and placed under cover during summer. N. Clark & Sons, of Alameda, owners.

Heath & Smith's Clay-pits.—They are in the vicinity of Carbondale, and supply large quantities of clay, of which there are several qualities, to potteries and terra cotta works throughout the State. During the summer months 4,000 tons will be housed for shipment during winter, when the rains make it impossible to dig or ship the clay from the pits. Heath & Smith, of May P. O., owners.

BUTTE COUNTY

Walker's, W. A. Brickyards.—They are 3 miles S. E. of Chico, and supply the local markets at Biggs and Gridley. A superficial deposit of sandy loam, 3′ to 6′ thick, lying between the surface soil and underlying sand, is used successfully. Where hardpan occurs beneath the loam, as in the case in many places, it is said to contain too little sand to make good bricks.

CONTRA COSTA COUNTY

Mount Diablo Pottery and Paving Brick Co.'s Works.—They have been recently established on the railway, ½ mile W. of Antioch. The company will manufacture paving and pressed bricks, terra cotta, fire-proofing, sewer-pipe, flower-pots, roofing-tiles, etc. The clays used are from stratified beds in the foothill, S. and W. of the pottery, and, so far as they have been tested, are said to be satisfactory. E. T. Maple, of Antioch, superintendent.

KERN COUNTY

The Bakersfield Palent Brick Co. of Bakersfield made abont 600,000 bricks during 1895.

LOS ANGELES COUNTY

The manufacture of bricks and terra-cotta ware has been greatly stimulated by the use of oil as fuel, and by the increased demand for structural material. The Pliocene formations around Los Angeles afford an inexhaustible supply of clay suitable for brick, and for mixing with other clays in the manufacture of terra-cotta ware.

Berg & Layne's Brickyard.—It is at Los Angeles. An open kiln, fired by wood, is used, with a capacity of 8,000 bricks a day. Output for 1895, 1,500,000 bricks. Ten men

are employed. Berg & Loyne, of No. 125 W. Second street, owners.

California Sewer-Pipe Co.'s Brickyard.—It is at Vernon, 1 mile S. of Los Angeles. There are three down-draught kilns—one of 20′ and two of 28′ diameter—in which oil for fuel is used. Sewer-pipe, water-pipe, flue-lining, fire-bricks, drain-tiles, etc., are manufactured. The clay is obtained from near Elsinore, Riverside County. Twenty-six men are employed. California Sewer-Pipe Co., owner; T. M. Riley, of No. 649 S. Broadway, manager.

Capitol Steam Brick Works.—Located at Los Angeles. An open kiln, fired by wood, coal and oil, is used. Its capacity is 40,000 bricks a day. Forty men are employed. E. Simons, of No. 125 W. Second street, owner.

City Brick Co.—See our XIIth Report, p. 381. Its yard is located in Los Angeles, and employs an open kiln, fired with wood. Its capaciey is 38,000 bricks a day. Thirty-five men are employed. A. A. Hubberd, of No. 125 W. Second street, manager.

Davin's Brickyard.—It is in Los Angeles, and uses an open kiln, fired with wood. Its capacity is 12,000 bricks a day. Twelve men are employed. P. Davin, corner Saratoga and Brooklyn streets, Boyle Heights, owner.

Eureka Brick Co.—Its open kiln is located at Los Angeles and heated with oil. Its capacity is 18,000 bricks a day. Fifteen men are employed. W. R. Gleason, of No. 127 W. Second street, superintendent.

To be continued.

HARD-EARNED WAGES.

An old chuch in Belgium decided to repair its properties, and employed an artist to touch up a large painting. Upon presenting his bill, the committee in charge refused payment unless the details were specified, whereupon he presented the items as followers:

For correcting the Ten Commandments	$ 5.12
Embellishing Pontius Pilate and putting new ribbons on his bonnet	3.02
Putting new tail on the rooster of St. Peter and mending his comb	2.20
Replumbing and gilding left wing of guardian angel	5 18
Washing the servant of the high Priest and putting carmine on his cheeks	5.02
Renewing Heaven, adjusting the stars and cleaning up the moon	7.14
Touching up purgatory and restoring lost souls	3.06
Brightning up the flames of hell, putting new tail on the devil, mending his left hoof, and doing several odd jobs for the damned	7.17
Rebordering the robes of Herod and adjusting his wig	4.00
Taking the spots off the son of Tobias	1.30
Cleaning Baalam's ass and putting one shoe on him	1.70
Putting earrings in Sarah's ears	1.71
Putting a new stone in David's sling, enlarging the head of Goliath, and extending Saul's legs	6.13
Decorating Noah's Ark and putting a new head on Shem	4.31
Mending the shirt of the Prodigal son and cleaning his ear	3.39
	$60.45

PRISON BARS TO BE WATER PIPES.

ARCHITECT SHEA HAS A NOVEL PLAN FOR THE HALL OF JUSTICE.

Frank T. Shea, the architect of the Hall of Justice, the corner-stone of which was laid on Saturday, will submit to the Board of Supervisors a device for a City Prison to be continued in the building that in point of novelty and usefulness will outrank anything of the kind in the United States. If Mr. Shea's plan be adopted the escape of prisoners will be rendered impossible in the future.

He proposes to construct the cells in the prison of steel pipes, to be filled with water at a high pressure. At the desk of the sergeant in charge of the prison will be a gauge similar to a steam gauge on a boiler, by which the exact pressure of the water will be registered. If a prisoner should attempt to cut his way out of the prison by filling one of the steel bars a stream of water would escape as soon as he filed through the pipe. Simulaneously with the escape of the water an electric bell on the gauge at the sergeant's desk would ring and the indicator would show the number of the cell where the prisoner was trying to escape.

So far as Mr. Shea knows, a device similar to the one proposed by him has never been used in a prison in the United States or elsewhere. He believes that if the plan were given apractical trial, jail deliveries in this city would never be heard of again.

Mr. Shea has also prepared a system of electrical devices that will remove the necessity of having "trusties" in the prison. By pressing a button at his dest the sergeant will be able to open the door of any cell in the prison. The prisoner desired may then step out into the corridor, after which the sergeant may press another button and close the door. The door separating the corridor from the sergeant's office may afterward be opened in the same manner and the prisoner allowed to walk to the desk.

The value of the device lies in the fact that "trusties" are always a source of more or less annoyance in every prison. In many instances jail deliveries have been traced to men who were given the liberty of the prison in order that they might do odd chores about the place.

Whether or not the plans of the Hall of Justice can be changed at this late day to permit of a trial of the devices suggested by Mr. Shea is a question. Mayor Sutro contends the law specifically prohibits the changing of plans for a public building after they shall have been once agreed upon. By others it is contended that the Board of Supervisors has power to authorize a change in the plans where the public good is at stake. The alterations suggested by Architect Shea would not involve the expenditure of any more money for the building, inasmuch as the increased cost of the prison could be saved somewhat else. At any rate Mr. Shea will suggest to the Board of Supervisors the modifications he has in mind with regard to the prison and it is believed that the plans will be adopted.

Mr. Shea wrote into the Patent Office to ascertain if application had ever been made for a patent on a prison cell constructed of steel pipes filled with water, and was informed that no application of the kind had ever been made. He will apply for a patent on the invention.—*Examiner.*

CALIFORNIA ROADS.

The California Bureau of Highways has given to the Governor a report of its labors. It closes with this recommendation:

The adoption of the plan proposed, and the inauguration of the system recommended, together with the minor recommendations, would make the Golden State the ideal highway community of the world.

Let the good work go on. The Legislature is about to convene. A great opportunity lies before it, for it has the united support of the people and of the press, and there is no subject now committed to our law-makers from which California can hope for so much immediate advantage and lasting good as from wise laws now enacted which will result in the construction of a complete system of well built highways throughout the State. The movement has gained an impetus which needs but to be wisely directed to accomplish this.

And in the years to come, when the results of their efforts shall be fully seen and appreciated, it will be found that those who are now giving their time and their energies to this movement for good roads, which is extending throughout the entire nation, will have "builded better than they knew."

CALIFORNIA HAS MORE TO GAIN THAN ANY OTHER STATE FROM GOOD ROADS.

In the marvelous diversity of her products, and the mildness of her climate, California has more to offer as an inducement to rural settlement than any other State, and hence she has more to gain from good roads. For good roads bring in their wake everything which will attract industrious men from the occupations of the cities and from other States and other countries to go out upon the lands of California and till them and build up homes upon them. And in settlement of fertile, but now largely unoccupied lands, must we look for the future growth and permanent prosperity of the State. And wherever such men can gather as they will, in thickly settled rural communities, with easy means of access to near-by towns and interior cities, the problem of labor for manufacturing will be solved. And in its solution, and in the upbuilding of local manufacturing industries to supply the home markets thus created by a thickly settled rural population, lies the true key to the solution of many of the problems of transportation and distribution which are perplexing the California producer of to-day.

Good roads will stimulate the subdivision of large holdings, will give increased value to small farms, thus made more easily accessible to neighbors, towns and market, will promote rural settlement by making life in the country more attractive than city life to the most intelligent classes, and will enable our rural people to maintain the very highest standards of mental and educational acquirement and social life. For rural life in California, even to him who has only a cottage home in the midst of a small farm well tilled, affords the fullest scope for all the refinements of life, and can furnish more daily comforts, and be set amidst more beautiful surrounds, than the most lavish expenditure of wealth can give in countries less favored by nature.—*California Advocate.*

WIRE BUILDINGS FOR TELEPHONES.

BY HERBERT LAWS WEBB.

Every large office building that is put up to-day should be fully wired for telephone service. Telephone communication is almost as much of a business necessity to-day as ink and paper and no modern building can be quite modern, and thoroughly up to date, in which provision is not made for supplying telephone communication to every room. At present, it is true, it is rather the exception to find an office building properly wired throughout for telephone connections, but in a few years the exceptions will be those that are not so wired. The demand for telephone service of all kinds is increasing so rapidly that owners of buildings cannot afford to expose their tenants to the delays and inconveniences incident to running wires through large buildings every time a new telephone service is required. A well designed substantial system of telephone wiring is therefore a necessity in the modern office building, in the modern hotel, in the modern factory and even in the modern club or large residence. The architect who would keep abreast with the requirements of the day cannot afford to neglect this.

There are three requisites that a system of interior wiring should fulfill. These are: 1, that the wires should be suitable for telephone working; 2, that they should be accessible to allow of additions, withdrawals or repairs; 3, that they should all terminate at one central point.

The requirements of clause 1 are not difficult to meet. They demand that every circuit shall be metallic and that the two sides of the circuit shall be twisted together with not less than four twists to the foot. This arrangement of the circuit tends to neutralize the disturbing effects of currents that may be circulating in neighboring wires. As to he size of wire, No. 10 B. & S., insulated to 3-32ds with a good quality of water proof compound is sufficiently substantial. But let it be a good quality; beware of cheap insulated wire, for it is the dearest in the end. It is a good plan to have the two wires of the twisted pair of different colors so that they may be readily distinguished at the ends without the delay of testing out.

Clause 2 means, of course, that the wires should be run in conduits or tubing. The area of inflexible and inaccessible systems of wiring has passed. Every kind of wiring that is done on a large scale should be arranged so that the wires can readily be got at for inspection or repairs, readily withdrawn or added to without disturbing walls, partitions or flooring. Such accessibility and flexibility can only be secured by the use of conduit tubing.

The concentration of all the different circuits at one point is a sufficiently obvious necessity to need no elaboration. The wires should all be taken to a terminal or cross-connecting board by means of which connection may readily be made with the trunk lines from the telephone exchange. The cross-connecting board will also serve to connect together circuits from different rooms in the event of permanent communication being required between officers in the same building.

A complete system of telephone wiring laid out in accordance with the general requisites outlined above is a very important and valuable adjunct to the modern office building.—*Architects' Electrical Bulletin.*

ILLUSTRATIONS.

The management of this journal desires to extend a cordial invitation to all architects on this coast and elsewhere to contribute designs for publication.

Drawings should be made with perfectly black lines on a smooth white surface. Good tracings, if made with black ink, answer the purpose.

The designs selected will be published without charge. All drawings, whether accepted or not, will be returned to their authors, who must bear express charges both ways.

PLANS and perspective drawing of competitive design for State Capitol of Montana, Albert Sutton, architect.

NOTICE OF MEETINGS.

San Francisco Chapter, American Institute of Architects, meets second Friday of each month at 408 California street.

Seth Babson, Pres. W. P. Moore, Vice-Pres.
Oliver Everett, Sec. John M. Curtis, Treas.

Southern California Chapter American Institute of Architects, meets first Wednesday of each month at 114 Spring street, Los Angeles, Cal.

Octavius Morgan, Pres. A. M. Edelman, Vice-Pres.
Arthur B. Benton, Sec't. August Wackerbarth, Treas.

Technical Society of the Pacific Coast, meets first Friday of each month at Academy of Sciences Building.

Geo. W. Dickie, Pres. W. G. Curtis, Vice-Pres.
Otto Von Geldern, Sec. Edward T. Schild, Treas.

Master Plumbers' Association, meets every first and third Friday of each month at the Flood Building.

Jas. E. Britt, Pres. J. L. E. Firman, Sec.

Builders' Exchange, Directors meet first Friday in each month at Mission and New Montgomery.

Oscar Lewis, Pres. Jas. A. Wilson, Sec.

Masons' and Builders' Association, meet first Friday even ing of each month.

Adam Beck, Pres. M. V. Brady, Sec.

BOOKS AND PERIODICALS.

LIPPINCOTT'S Magazine for January, 1897, contains among other interesting articles a capital story called "Stockings Full of Money." This is a well written novel, and very cleverly contrives to keep the reader wondering how it ends and who is guilty.

Among our exchanges THE BUILDER, published in Boston at 85 Water street, is always most welcome, as this this journal devoted to the interests of architecture in materials of clay is sure to contain something of use to architects, illustrated in a manner that does credit to the publishers. The prospectus of this journal for 1897 announces the leading articles for the year, as well as the writers who will contribute during the year.

SAN FRANCISCO CHAPTER OF THE AMERICAN INSTITUTE OF ARCHITECTS.

THE REGULAR monthly meeting of the Chapter was was held on January 8, 1897.

The principal business was the discussion of a bill to regulate the practice of architecture in the State of California. Mr. B. E. Henriksen was appointed a committee of one with power to act, to present a bill on similar lines to the one defeated two years ago.

The following is the text of the bill introduced into the Legislature by Mr. Pendleton on January 16, 1895 and amended in Assembly, under special instructions, March 2, 1895 and further amended in Assembly February 2, 1895:

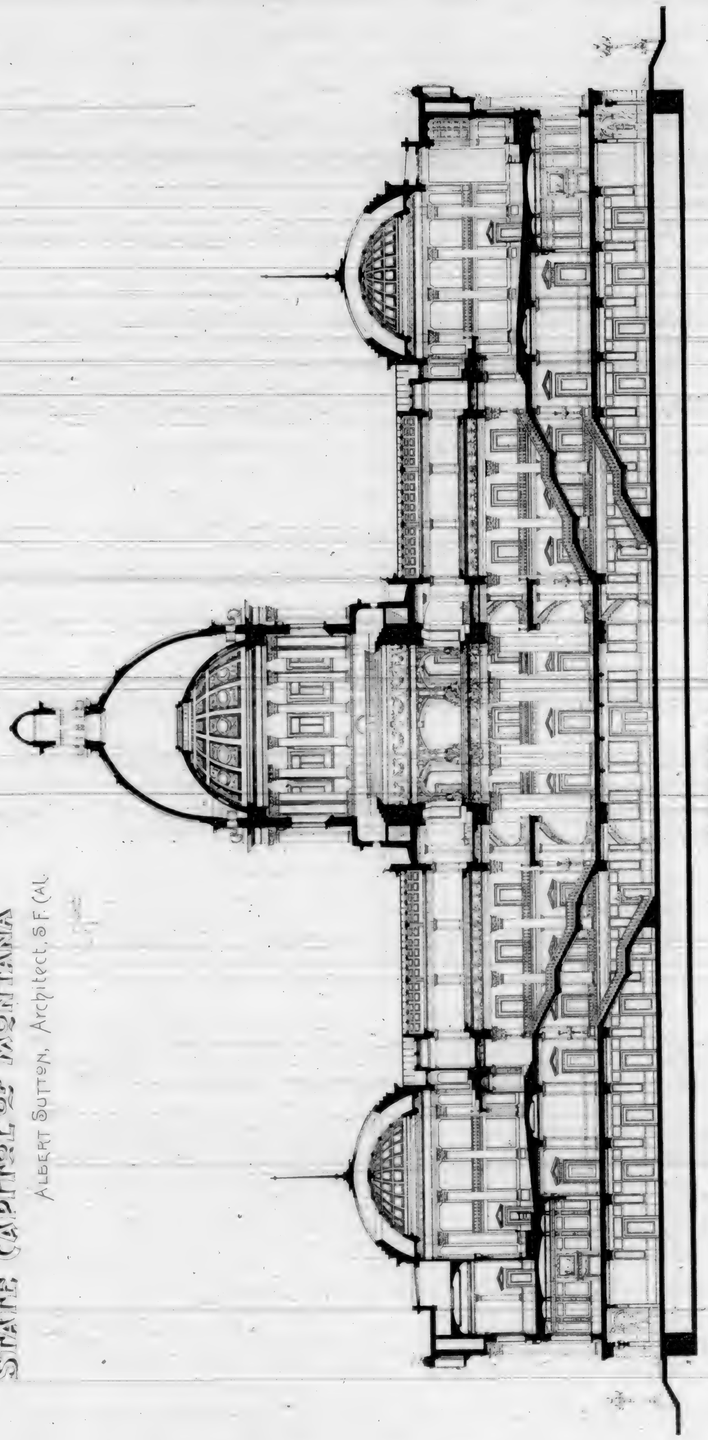
AN ACT TO REGULATE THE PRACTICE OF ARCHITECTURE.

THE PEOPLE OF THE STATE OF CALIFORNIA, REPRESEFTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Within sixty day from and after the passage of this Act, the Governor of the State shall appoint ten persons, which persons so appointed shall constitute a Board, which Board shall be known and designated as the State Board of Architecture.

Five members of said Board of Architecture shall be residents of the Northern United States Judicial District of California, and shall constitute the Northern District Board for the examination of applicants for license to practice architecture in this State. And five members of said Board shall be appointed from the Southern United States Judicial District of California, and shall constitute the Southern District Board for the examination of applicants for license to practice architecture in this State.

The districts shall be the same as the Northern and



LONGITUDINAL SECTION.

BRITTON & REY, PHOTO LITH.

COMPETITIVE DESIGN FOR
STATE CAPITOL OF MONTANA
ALBERT SUTTON, ARCHITECT, S.F. CAL.

CALIFORNIA ARCHITECT & BUILDING NEWS
SAN FRANCISCO.

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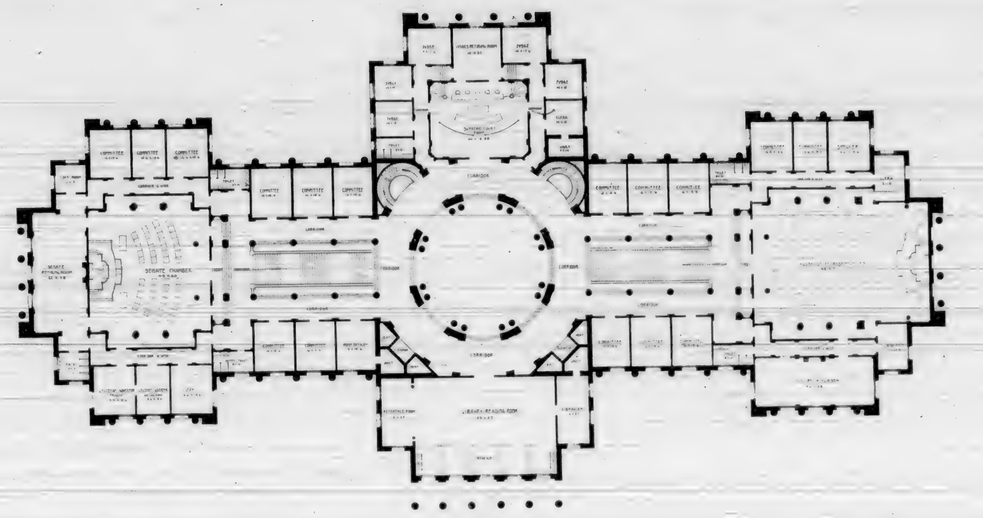
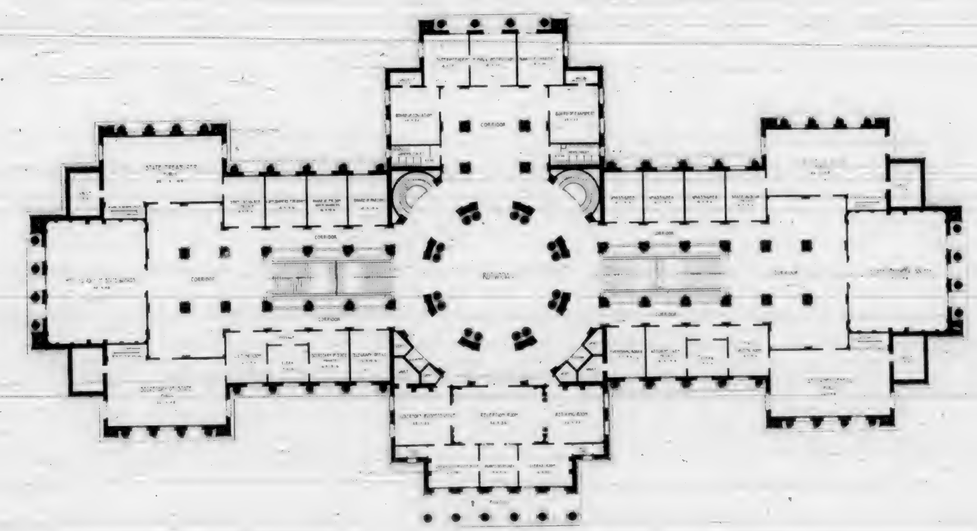


SECOND FLOOR PLAN

COMPETITIVE DESIGN FOR
STATE CAPITOL OF MONTANA
ALBERT SUTTON, Architect. S.F. CAL.



FIRST FLOOR PLAN

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BRITTON & REY, PHOTO LITH.

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